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AMERICAN Cinematographer

★ THE MOTION PICTURE CAMERA MAGAZINE ★

In This Issue . . .

SHOOTING WITH TWO-COLOR BIPACK FILM

MAY
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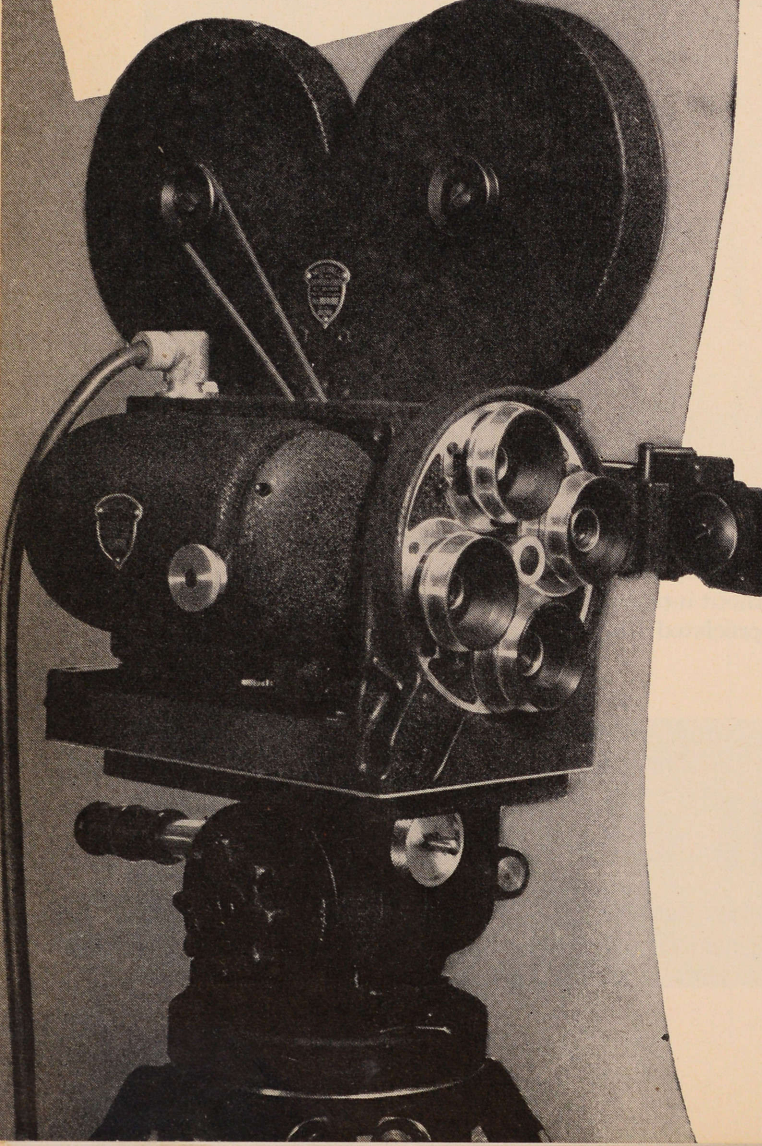

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THE MOTION PICTURE CAMERA MAGAZINE

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ON THE FRONT COVER—Exterior setup for scene in the Universal-International production, "The Egg and I," which stars Claudette Colbert and Fred MacMurray. Marjorie Main and Percy Kilbride are shown on the wagon seat, with Director Chester Erskine on elevated seat at extreme right. Director of Photography Milton Krasner is shown in lower right foreground for best angle to watch the camera action.

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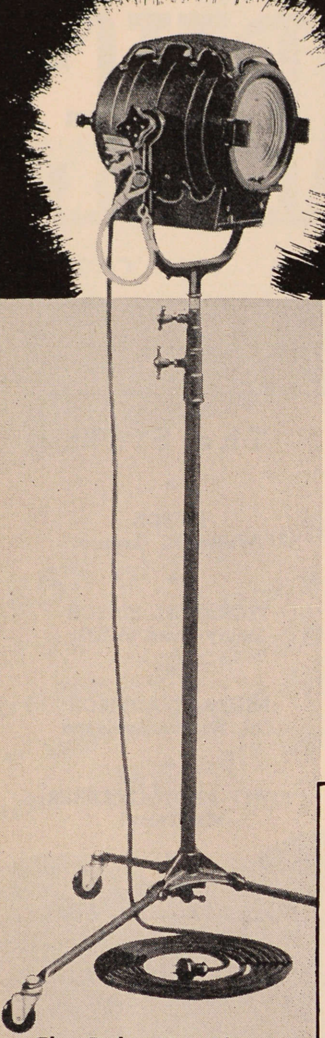

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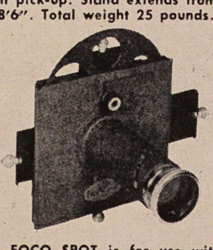

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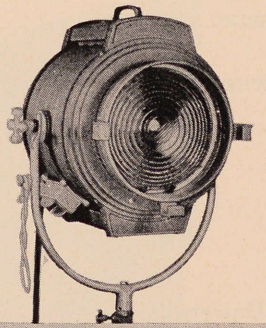

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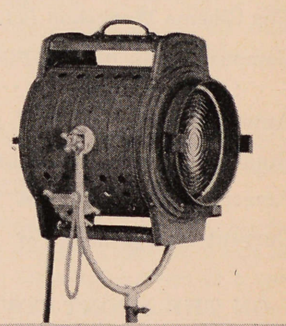

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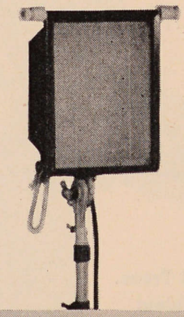

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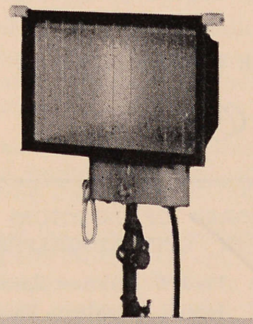

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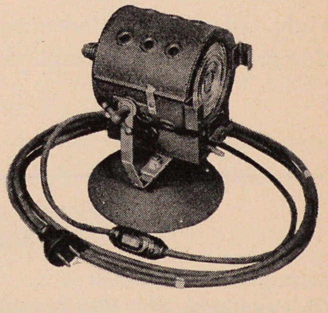

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Studio Production With Two Color Bipack Motion Picture Film

By JOHN W. BOYLE, A. S. C. and BENJAMIN BERG

Presented by John Boyle, A.S.C., at the October, 1946 Convention of the Society of Motion Picture Engineers, and Published in the February, 1947 issue of SMPE Journal. Reprinted by permission.

Summary.—The increased use of color in motion pictures has brought about a revival of interest in two-color bipack processes. With proper handling, allowing sufficient production time, and good co-ordination between camera, make-up, art, and wardrobe departments, the results with a two-color process are very adequate.

The entire production program of the Hal Roach Studios is in a two-color process. The technical departments have had the advantage of planning for the limitations of a two-color process. This has enabled the studio to obtain the ultimate possible from such a process. This paper describes briefly some of the problems overcome and techniques developed.

The increased use of color in motion picture production and the inability of the producers to secure sufficient three-color footage for release prints has brought revival of interest in two-color bipack processes. With proper handling, allowing sufficient production time and good co-ordination among all departments, such as camera, make-up, art, wardrobe, property, etc., the results with a two-color process are very satisfactory.

Since a two-color process can only record a limited range of colors successfully, this co-ordination between the various departments is absolutely essential.

The Hal Roach Studio, upon reopening after the war, is producing all of its pictures in color. With the entire product of the studio in color, the technical departments have had the advantage of planning for the limitations of a two-color process. This has enabled the studio to obtain the ultimate possible from such a process.

While a good deal of the following is common knowledge, we believe no literature is available which has attempted to give practical assistance to the worker attempting two-color photography for the first time.

With a few changes, any standard 35-mm cine camera can be utilized to photograph bipack film. These are the changes we have found necessary to convert the *NC* Type Mitchell for bipack: *(1)* Move lenses toward film (emulsion) plane a distance of 0.0045 in., then use normal calibrations for focus. Cameras with standard instead of "slip-ring" lens mounts would have to be either eye focused or recalibrated; *(2)* Adjusting lenses will necessitate "shimming" the ground glass back 0.0045 in.; *(3)* Remove "stripper" shoe at back of main sprocket and replace with "cutaway" shoe; *(4)* Lock off clutch; *(5)* Substitute either a four-roller pressure plate, or a solid pressure plate. In the four-roller plate the top roller is straight while the other three rollers are crowned 0.003 in. The four-roller pressure plate is patented by the Cinecolor Corporation and license for use must be obtained from them. The solid-type plate is crowned 0.003 in. and is of polished chrome. Pressure can be obtained with a solid screw or by use of a spring twice the tension of the normal spring. In practice we have used the solid screw for the four-roller plate, being careful to avoid "run-outs."

The proper adjustment of the pressure plate is very important; insufficient clearance with consequent "punching" will cause perforation damage and out-of-register images, while too much clearance will destroy contact of the rear negative resulting in "breathing" and out-of-focus pictures.

Too much stress cannot be placed upon adequate camera maintenance. One of the most common faults in the use of bipack has been out-of-register prints owing to faulty camera operation. Nothing

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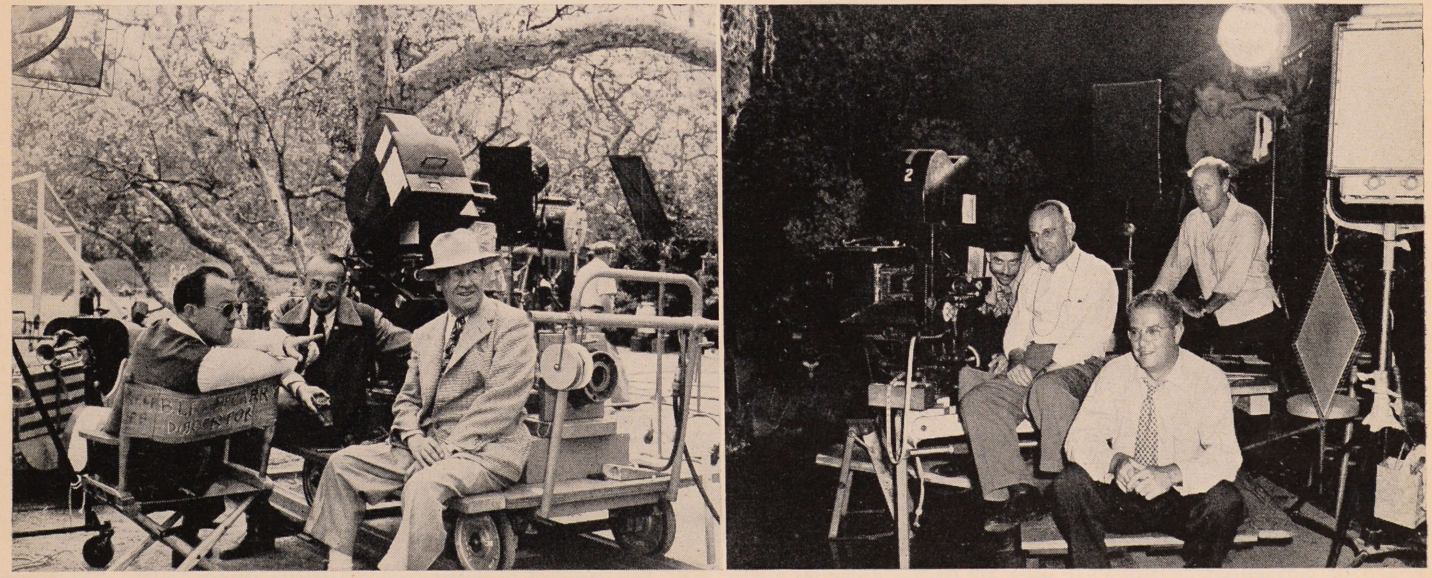


John W. Boyle, A.S.C., Director of Photography on the Hal Roach series of bipack two color features, on the sets. Left, Boyle is in center of exterior location; and seated beside camera on stage.

Leon Shamroy Elected President of A. S. C.

LEON SHAMROY has been elected President of the American Society of Cinematographers for the coming year. He succeeds Leonard Smith, who headed the organization for the past four years with a brilliant record in his administration during the final two years of the war and the post-war period.

President Shamroy has been a member of the Board of Governors of the A. S. C. for a number of years, during which period he has continually demonstrated his interests in the welfare and progress of both the organization and its members; and was first vice president during the past year. He is one of the outstanding Directors of Photography of the industry, which is demonstrated by his winning of three Academy Awards for Best Cinematography — "Black Swan," "Wilson," and "Leave Her To Heaven."

Board Members Returned

Five members of the Board of Governors, up for re-election for three year terms, were returned to office by the A.C.S. membership. They comprise: Leon Shamroy, Leonard Smith, John Seitz, Joseph Walker, and Lee Garmes. Due to the growing absence of board members from Hollywood on far-distant locations, five alternate board members were selected for one year periods, which will insure quorum at each monthly meeting of the group. The alternates are: John Arnold, Al Gilks, Joseph Ruttenberg, Milton Krasner, and Sol Halperin.

Other Officers

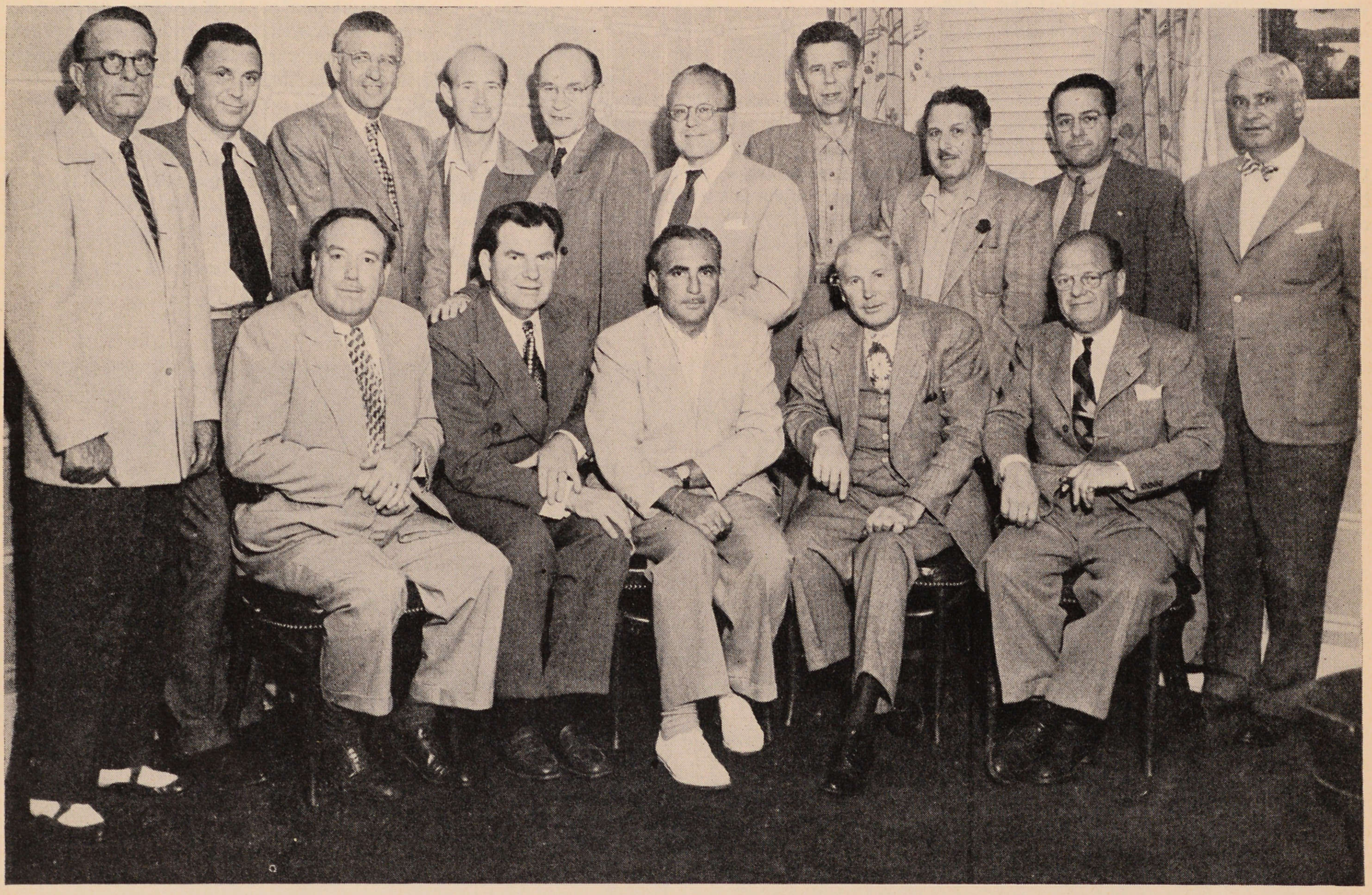
In addition to selecting Leon Shamroy for President for the ensuing year, the board of governors elected the following officers: Charles Clarke, Joseph Ruttenberg and Lee Garmes, vice presidents; Ray Rennahan, secretary; Fred Jackman, executive vice president and treasurer; and Sol Halperin, sergeant-at-arms. Jackman and Rennahan were re-elected by acclamation.

Complete Board of Governors to function for the A. S. C. during the coming year will include: John Boyle, Charles G. Clarke, Arthur Edeson, George Folsey, Lee Garmes, Fred W. Jackman, Gordon Jennings, Sol Polito, Ray Rennahan, Charles Rosher, John Seitz, Leon Shamroy, William V. Skall, Leonard Smith, Joseph Walker; in addition to the five alternates named above. Addition of the latter five adds even more strength to the guiding group of the organization, as all are in addition to the regular board members—veteran top cinematographers with many years of experience in the industry.

Retiring President's Thanks

In retiring as president after four consecutive terms, Leonard Smith stated, "I am very happy in the election of Leon Shamroy to head the A. S. C., and that both the members and Board of Governors will give him all of the splendid cooperation that was extended to me. He has continually demonstrated his desires to promote the welfare of the A. S. C. to make it a stronger and better organization.

"I am very proud of the accomplishments and progress of the organization during my presidency, and want to thank both the members as a whole, and the Board of Governors, for the splendid cooperation accorded over the past four years."



BOARD OF GOVERNORS OF THE A.S.C. which will function during the coming year. Back row (left to right): Fred W. Jackman, Milton Krasner, John Arnold, George Folsey, John Seitz, Charles Rosher, Len Smith, Sol Polito, William Skall, Sol Halperin. Seated (left to right): Lee Garmes, Charles Clarke, President Leon Shamroy, Ray Rennahan, and Joseph Ruttenberg. Not present when picture was taken were: Arthur Edeson, Gordon Jennings, Joseph Walker, John Boyle and Al Gilks.

—Photo by C. A. Peterson

A Message To The A. S. C.

by Leon Shamroy

"Now past its Silver Anniversary, the A. S. C. has a real tradition which is recognized and respected wherever films are shown. The prestige of the A. S. C. is the result of a history of intelligence, unselfish courage and foresight, displayed by a long line of founders.

"When Phil Rosen came to Los Angeles in 1919 to photograph "The Miracle Man" for George Loane Tucker, he brought with him an idea for a national organization of progressive members of the camera craft, a body that would include motion picture photographers from all parts of the country—who could thus exchange ideas and work together for the betterment of the camera profession. Rosen, together with other members of the craft, discussed the idea for the national body. From these discussions resulted the formation of the American Society of Cinematographers.

"These men, and the others who supported and enlarged their ideals, transformed a disorganized and none-too-well respected craft into the chief instrument of the first great mass art. And at the same time, they organized a society to define, preserve, and create standards for their art and to protect its practitioners. All of this was achieved within a quarter century, an actual world's record for the growth of a tradition in any art or science.

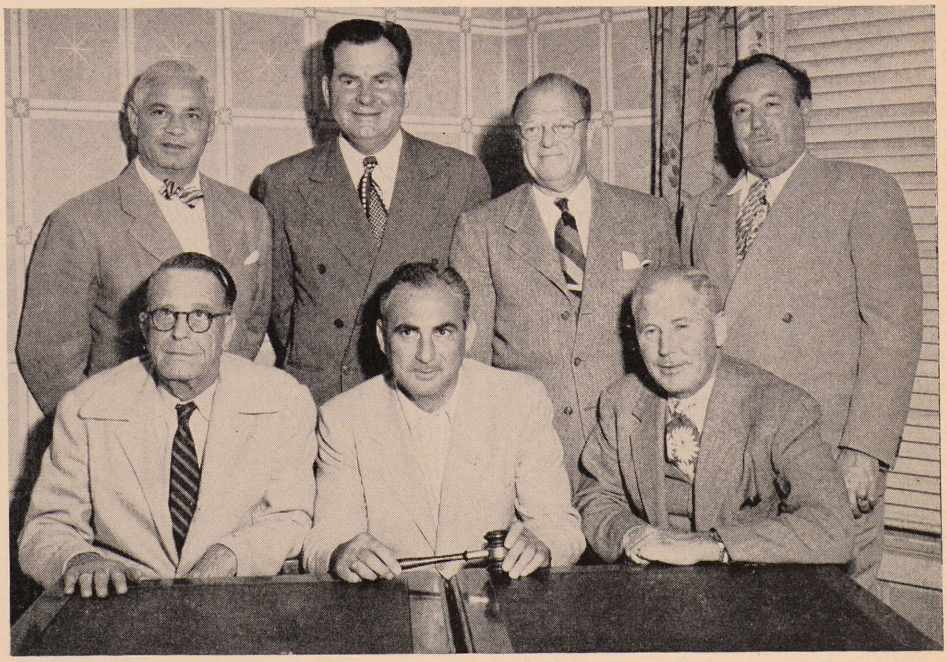
"When you sit down in a chair for the first time in a new job, you need to think about who sat there before you, who made the chair comfortable, and who gave it the look of prestige and service. For the chair epitomizes a job to be accomplished on the basis of service rendered by previous occupants.

'Men like Philip Rosen, James C. Van Trees, Gaetano Gaudio, Homer A. Scott, Daniel B. Clark, John W. Boyle, John F. Seitz, Hal Mohr, John Arnold and Fred W. Jackman, have made the president's chair of the A.S.C. a symbol of the society's achievements. And Leonard M. Smith culminated the work of all his predecessors with an unsurpased record of service carried on despite serious illness and enormous handicaps. His self sacrifice typifies the spirit that has carried the membership of the A.S.C. successfully through the familiar and continuing difficulties of an industry which in the last analysis depends on the art of the camera to tell its story.

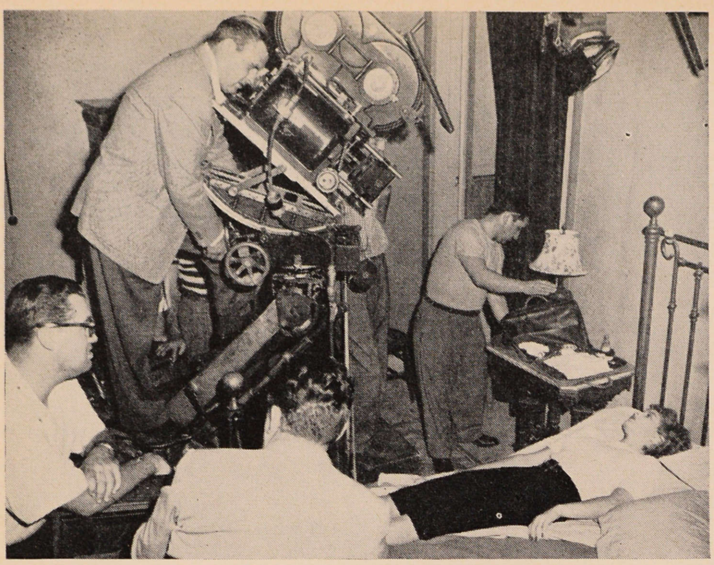
"When anyone is serious in Hollywood it's usually taken as a gag. But I'll risk that in making an humble bow to these men for what they have done for our profession. And I'd like to make another

(Continued on Page 190)

President Leon Shamroy (left) receives congratulations from retiring President, Leonard Smith.
Photo by Gene Kornman



A.S.C. officers for the ensuing year. Seated (left to right): Fred Jackman, Executive Vice President and Treasurer; Leon Shamroy, President; Ray Rennahan, Secretary. Standing: Sol Halperin, Sergeant-at-arms; and Vice Presidents Charles Clarke, Joseph Ruttenberg, and Lee Garmes.



Russell Metty, A.S.C., Director of Cinematography on Enterprise production, "Arch of Triumph," adjusts the camera for a close-up of Ingrid Bergman.

"TRIUMPH" IN LOW KEY

by Herb A. Lightman

WHEN the Academy awards presentation rolls around next year, it will be no surprise at all if Director of Cinematography Russell Metty, A.S.C., receives important consideration of his mood-filled photography of the Enterprise film "Arch of Triumph."

Here is photography which, without obvious tricks or spectacular lighting, is so closely tailored to the atmosphere of the story that it loses its identity as a separate element and actually becomes part of the narrative. Here is realism and mood and low-key lighting of an integrity seldom before seen on the screen.

"Arch of Triumph" is a filmnization of Eric Maria Remarque's best-selling novel of the same name. It's theme is the rather glamorless love story of Ravic, an Austrian refugee "ghost" surgeon, and Joan Madou, an Anglo-Rumanian-Italian torch singer—played respectively by Charles Boyer and Ingrid Bergman.

The locale of the story is German-occupied Paris. It is not a happy tale. The atmosphere throughout is somber, sullen, heavy with fear and impending tragedy. It throbs with sustained emotion that explodes from time to time into violently dramatic action.

It is the kind of story into which some cinematographers would have thrown everything but the proverbial kitchen sink, since it fairly teems with opportunities for "arty" camera effects. But contrary to expectation, it is the simple restraint of Metty's photography that makes the film outstanding as cinematic art.

Conceiving a Mood

Metty, a 210 lb. giant who looks more like a football fullback than a camera artist, caught the mood of the story long before it became his task to translate that mood into light and shadow for the screen.

"When I first read the novel," he recalls, "I got the impression of strong light and shade contrast. The characters seemed to appear either in a dim, shadowy light or in a flat white glare. With the use of a few simple lighting units, I've tried to infuse the picture with the same subdued feeling the author achieved with simple, direct words."

The result is a style of low-key lighting that perfectly conveys the inert hopelessness of the basic situation. In places it is raw and harsh, like an overcast day. At other times, when love for a moment melts the coarseness of reality, it becomes warm and modeled, with a certain earthly sensuality. It flows in a constantly changing pattern, precisely attuned to a story of many moods.

The basic lighting schemes used are so simple, to all appearances, that the force which they produce is doubly amazing. It is a great temptation for Hollywood cinematographers, having an unlimited number of lighting units available, to overcomplicate their lighting through the use of too many units.

As a basic set-up, Metty, using a working aperture of f 2.3, places a low-intensity key-light (not over 50 candlepower) at right angles to the lens, so that the faces of the subjects are thrown into bold relief against the background. The feeling of mood is intensified by the use of little or no *fill* light.

Although extremely effective, this style of lighting is not always flattering to the faces of the players, some of whom have features that have to be flattered considerably. Although Metty realizes this, his integrity as a Director of Photography will not permit him to change a light source that has been established in a master scene simply because, in the close-ups, it happens to show a star the way nature actually constructed her.

"I can see no reason to alter a lighting plan simply to give the subject the benefit of flattering lighting," he maintains. "Why should this be done? The human eye, the greatest camera ever devised, doesn't compensate in this way, and I certainly don't feel that I'm the one to attempt improvements on the quality of reproduction offered by normal human vision."

Fortunately for all concerned with "Arch of Triumph," Miss Bergman is one star who would be photogenic even with a sack over her head, so it was no problem at al for her to look attractive even with the extreme shadow contrast which this type of lighting produces.

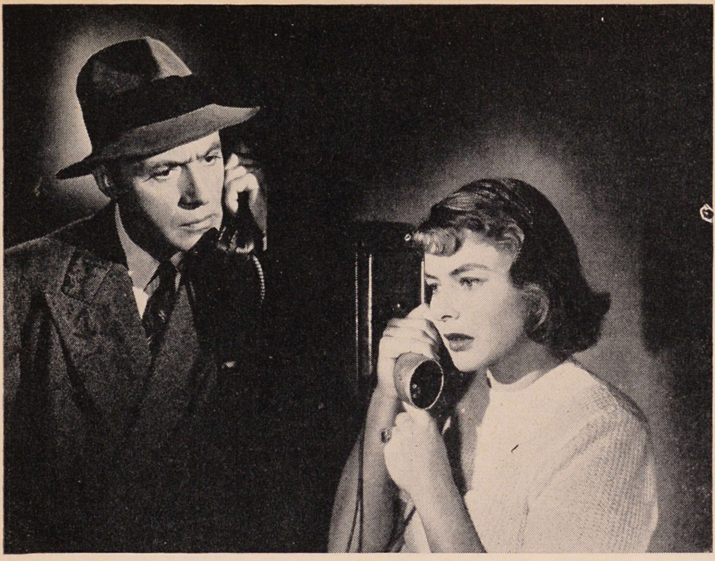
The Case Against Color

Refuting the argument of certain critics who maintain that *every* motion picture should be (and eventually *will* be) filmed in color, Metty points out that "Arch of Triumph" definitely owes its pictorial force to the fact that it is photographed in black and white.

"Only in black and white, with full contrast between strong highlights and deep shadows, can a real sense of depth be obtained. This is one picture that would definitely lose all feeling of mood if filmed in color—because, despite the tremendous strides that have recently been made toward high fidelity reproduction in color, so far the process has not been developed to where it can catch the minute gradations from blank white, through the grays, to deep black."

A sequence in the picture lit with particular skill is that in which Boyer tells Miss Bergman that he is leaving her. As the action begins, it is sunset in Paris, and the light which fills the room has a sharp luminosity that throws into bold relief the faces of the two characters approaching and withdrawing from the window light-source.

As the scene progresses, the sun dips below the horizon so that, finally, the only light in the room is the first faint glow of moonlight, subtly highlighting the faces of the characters as the situation reaches its dramatic climax. The change is so smooth and gradual that at no time is the audience aware that the entire key of the scene has been altered to complement a changing dramatic mood.



Left: A new technique replaces the conventional split-screen method of showing a telephone conversation between Charles Boyer and Ingrid Bergman in "Arch of Triumph." Actually, both players are side-by-side on the same set, although deftly controlled lighting makes them appear to be some distance apart. Right: A scene in the Cafe Scheherazade in Paris exemplifies the forceful style of mood lighting used so effectively throughout the film.

Original Camera Techniques

Russell Metty's photography in "Arch of Triumph" is highlighted by several original camera approaches to effects previously achieved through stereotyped methods.

In one sequence, Ravic has just killed the story's antagonist, a Gestapo agent, and is driving the body to a place where he can bury it. As he drives along, he imagines that the face of the Gestapo agent appears before him and taunts him with mocking words. Ordinarily, such an effect would be obtained by double-printing a shot of the agent's face over the shot of Ravic driving in his car.

Instead, Metty faded in a strong key-light onto the face of the agent slumped next to Ravic, so that his face, as he talked, was actually reflected into the windshield. The effect was filmed all in one shot, and it has a smoothness and finish that is usually lacking in such tricky devices.

In another sequence, a dramatic high-point of the story, Ravic calls Joan to tell her he is about to be deported. Their telephone conversation is staged to show both characters on the screen at the same time, in order to avoid the distraction of inter-cutting two separate scenes.

Such an effect is usually accomplished by double-printing the halves of two different negatives into one duped negative in what is known as a *split-screen* technique. Avoiding this method, Metty staged the scene so that the two characters actually appear on the same set at the same time but lighted in such a way that, although just a few feet apart, they seem to be some distance away. The result has a clarity, naturalness, and quality that could not possibly have been achieved through the use of the split-screen method.

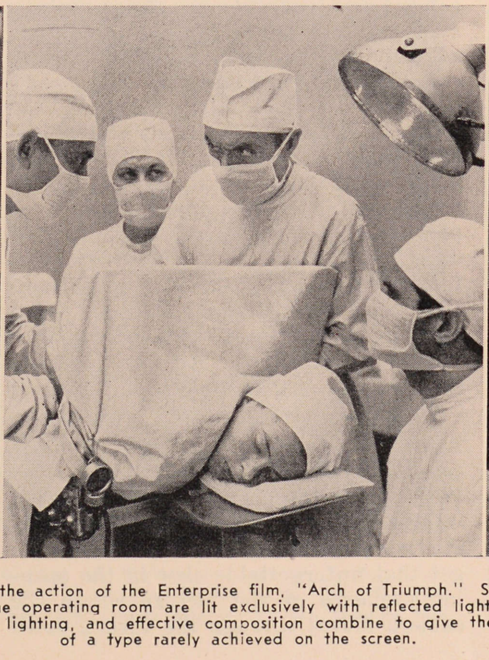
Perhaps the most unusual style of lighting used in the picture is that which characterizes the operating room sequences. Here Metty used *indirect* lighting to reproduce the starkly white, flat atmosphere of the modern surgery. He gained a shadowless high-keye effect by reflecting arc lights off of the white muslin backing that formed the walls and ceiling of the operating room. The result is a ghostly realistic atmosphere of drama in a cold sterile setting.

Effestive Working Habits

The excellence of Metty's photography is the result of an efficient set of working procedures which he has developed during the course of 25 years as a cameraman.

He believes in pre-planning, but maintains that it is impossible to plan every angle and effect down to the last detail prior to shooting, due to the fact that the situation as you had visualized

(Continued on Page 182)



Left: Dramatic low-key lighting characterizes much of the action of the Enterprise film, "Arch of Triumph." Simple light sources with little or no fill light sharply point up the dramatic situations. Center: Scenes in the operating room are lit exclusively with reflected light to produce a stark, shadowless quality necessary to the mood of the sequence. Right: Set design, low-key lighting, and effective composition combine to give the photography of "Arch of Triumph" an authenticity of a type rarely achieved on the screen.

A YEAR WITH THE "YEARLING"

by Charles Rosher, A. C. S.

Director Clarence Brown and Director of Photography Charles Rosher, A.S.C., lining up an interior shot for "The Yearling."

EIGHT years ago when MGM's Sidney Franklin undertook initial preparations for production of "The Yearling," Marjorie Kinnan Rawling's sensitive, heart-warming novel, he felt there would be many problems and he wasn't disappointed.

This story of a rugged people and their fight for existence amidst the wilds of Florida's scrub country is equaled only by the struggle of the production staff against what seemed to be an endless number of complications. At times production difficulties were so great, it looked as though the picture might be permanently abandoned. But those of us associated with the project developed a kind of affection for this simple yet beautiful story out of which grew a sense of responsibility to see it through, front office and Mother Nature willing.

Because of the primitive outdoor setting and the importance of Jody and the wild animals to telling the story, unbelievable demands were made on every creative and technical resource of the studio.

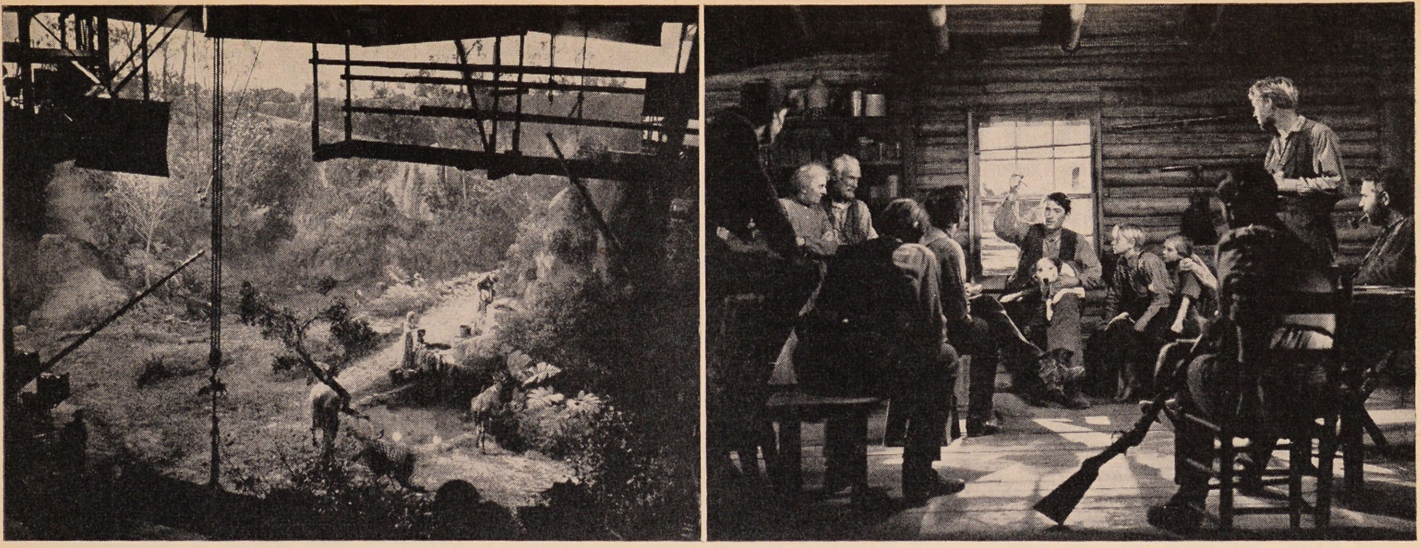
"The Yearling" presented one of the toughest directorial assignments in Clarence Brown's career, but he exhibited unbelievable patience in working out the many difficult problems involved. He may well be proud of his discovery of Claude Jarman who possesses rare photogenic qualities. Under Mr. Brown's expert guidance, Claude Jarman gave one of the finest child performances ever witnessed on the screen. It was a delight to watch the boy's response to Mr. Brown's direction.

From the very beginning it was agreed that the color photography should avoid the spectacular. Rather it should strive to capture the simple charm of "The Yearling" with fidelity to story, characters and background. As a result, six separate photographic expeditions were made to Florida with 410 actors, cameramen, technicians and set designers to film authentic scenes in the 1,450,000 acres of wilderness comprising the Ocala National Forest. There, the world of the Baxters had to be created for the cameras. Not one, but two complete Baxter farms were constructed at different locations, after the first was found too inaccessible. A rough idea of the immense physical job can be gleaned from the fact that over 6,000 jack pines were cut to build the log cabins in the scenes of the Baxter and Forester farms.

In May, 1945, when Leonard Smith, A.S.C., began photographing outdoor scenes in Florida, he was faced with the problem of getting boom shots when it was impossible to transport heavy studio equipment over marshy roads. To get that unforgettable shot in the opening sequence of the picture where the camera moves through the forest, down to the stream's edge introducing Jody (Claude Jarman) sprawled dreamily beside his flutter mill, a boom was improvised on the spot. An old trailer and a part of a tractor were pressed into use, and the result was this outstanding scene.

The beautiful scenes of Jody and the animals romping through the forest and the exciting bear fight sequence can be attributed to the exceptional talents of Chester Franklin, who will long be remembered for his direction of the film classic, "Sequoia;" and the excellent photography of Arthur Arling, A.S.C. Both sequences would have been impossible without the careful planning of multiple camera setups. For the bear fight alone, five cameras including two three-strip Technicolor cameras and three Mitchells, using Monopack, were concealed at strategic angles. The beautiful opening shot of Lake George was contributed by Charles Boyle, A.S.C., who made it during the original expedition to Florida.

The biggest and most exasperating problem to outdoor cinematography was Florida weather. Light conditions were unpredictable. In the first few weeks of location shooting, certain scenes required clouds. But it was one of nature's perversities to give nothing but brilliant blue sky during one of the worst draughts in Florida's history. As



FLORIDA BROUGHT TO CALIFORNIA. Great sink-hole reproduced on studio stage (left). At right, Penny Baxter tells story of the bear fight in a motion picture re-creation of the book's illustration by artist N. C. Wyeth.

time went on the blue was obscured by a murky, gray overcast caused by the many forest fires that developed from the dry spell.

A secondary headache to color photography was also introduced by the parched earth. To keep the Baxter farm in green crops, 27,000 stalks of corn and 4,200 tobacco plants were raised in cans and hothouses to replace those withered by the sun.

After a period of good weather, the elements turned against the company again. The drought was relieved by what seemed to be a never ending downpour. It rained day after day.

Shooting schedules were subject to constant change in an effort to make the best of existing weather conditions. Many a scene was halted abruptly to catch another because a cloud appeared from nowhere to scud across the sky.

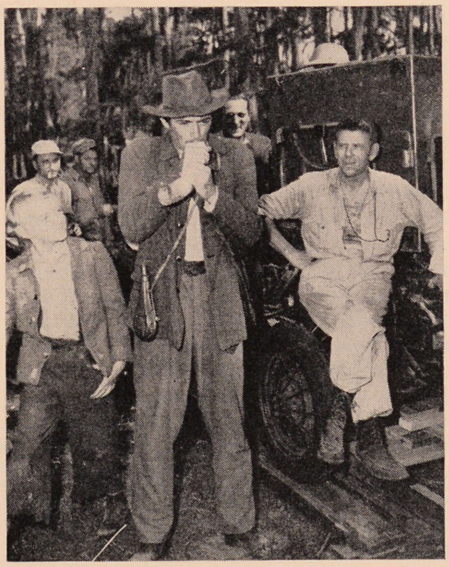
These were just a few of the physical problems encountered by the photographic crews.

As a Director of Photography, my main concern was achieving on film the complete realism envisioned by director Clarence Brown. In my first discussion with Mr. Brown, I learned of his decision to dispense with all artificial make-up. It was a bold step and a photographic challenge. It meant that the normal control over flesh tones possible with make-up, a very important factor in color, would be removed. Although I had more than an inkling of the difficulty involved, it was something I had long wanted to do . . . to show skin color and texture as they really are.

As anticipated, we had our troubles maintaining constant color values in the faces of the principal actors from one day to the next. Once Claude Jarman's complexion had been established, we made him wear a large straw hat when away from the cameras to keep him from getting a Florida or California tan. Gregory Peck, as Pa Baxter, having a heavy beard and a naturally ruddy complexion had to be treated frequently with an iced chamois skin to hold the redness down. On the other hand, Jane Wyman, as Ma Baxter, required the opposite treatment. She spent fifteen minutes a day under a sun lamp I loaned her, tanning that very fair skin of hers.

Throughout the picture I was conscious of an interesting paradox in complexions. Jane Wyman, who I had photographed before—but always as a glamor girl—was making the supreme sacrifice (for a star) to characterize the drab Ma Baxter. It was the delicate complexion of Claude Jarman that was a photographic delight and surely will be the envy of every woman who views the picture.

The absence of make-up on Jody contributed pictorially to the intensely dramatic scene at the climax of the picture where he rebels against his father's order to destroy "the yearling." If you'll notice, the boy's face goes red with emotion. An effect which otherwise would have been hidden by make-up came through to the film.



Director of Photography Leonard Smith, A.S.C., seated at right, on Florida location for "The Yearling" with Claude Jarman, Jr., and Gregory Peck.

While nearly four months were spent on location getting the important long shots, it remained to complete the bulk of the photography in the studio.

On Stages 15 and 30 of the MGM lot, the Baxter cabin and part of the farm, including the giant "sink hole," were recreated. To insure authenticity, the Florida cabin was dismantled and, together with rail fences, was shipped to Culver City. Forty tons of Spanish moss, typical of the scrub country, was loaded into a refrigerated car to keep it alive so it would grow on the set and photograph in the right color.

Back in the studio our troubles really began. Every long shot made under varying conditions of Florida sunlight had to be matched for lighting and color with close-ups made on the set. To insure an accurate match, projection equipment was kept on the stage. Each of the long shots filmed on location were viewed carefully with an eye to duplicating artificially the direction and quality of the natural light. As many as 30,000 amperes were consumed at one time in illuminating the huge set.

The dramatic mood of the majority of the scenes laid in the interior of the cabins suggested a low key lighting. But, in going to a low key, I wanted to inject a quality of warmth that seemed to eminate from this little family group. Warm tones were emphasized whenever the fireplace appeared to be the dominant source of illumination.

To accentuate the pathos of Fodderwing's funeral, the entire sequence was photographed in a cold light. This same effect was achieved in the moving shot over the grave stones of the Baxter children in the early scenes.

Special care was taken with shadow detail. Whenever possible, shadows were kept from going too black by a mod-

(Continued on Page 182)

8mm and 16mm PRACTICES FEATURED AT SMPE CHICAGO CONVENTION

MOST successful midwest convention in the 30 year history of the Society of Motion Picture Engineers was held at the Drake hotel, Chicago, April 21 to 25. In addition to record number of papers presented—mainly on 8 and 16 mm. procedures and practices and applicability of the sub-standard films for television use—attendance zoomed to high figures for a midwest meeting of the organization.

Because the convention was held so close to our press time, it is impossible to give a detailed report on proceedings in this issue. However, we are detailing some of the more important of the 60 papers presented, and abstracts of same where such information is provided:

Photography

"A New Sun Shade and Filter Holder for 16 mm. and 8 mm. Motion Picture Cameras," by James T. Strohm, Bardwell & McAllister, Inc., Hollywood, Calif. Description was given of a new sun shade and filter holder which may be used on any 8 or 16 mm. camera. It is not necessary to drill holes or alter the camera in any way, and the device is adjustable in all planes so that it may be correctly centered in front of the lens of any camera. By employing a series of slides, the device will accept gelatin or cemented filters, diffusion discs or gauzes, or polarscreens.

"The Mult-Efex Titler Device," by James T. Strohm, Bardwell & McAllister, Inc., Hollywood, Calif. A title device was described for use with 8 and 16 mm. cameras to facilitate making titles and such special effects as wipes, double exposures, flip-flop titles, swing-around titles, zooms, scroll and rolling titles. Outline and matte photography may also be accomplished. Means are provided for proper centering and a standard auxiliary lens is provided so that the title board may be used very close to the camera lens.

"An Instrument for Photometric Calibration of Lens Iris Scales," by M. G. Townsley, Bell & Howell Co., Chicago, Ill. An instrument for calibrating iris scales of photographic lenses was described. The iris scales are calibrated in "T" stops based on the photometric transmission parallel to the axis. This follows the procedure proposed by Daily. The new instrument employs alternating light pulses in measuring and comparison optical systems with calibrated attenuation in the comparison optical system to give a null output from the electron-multiplier photocell which is used as a detector. The null balance principle makes the unit extremely stable and the sensitivity is sufficient to make accurate measurements on iris openings as small as .031, which corresponds to 1" "T" 32. Data was given on transmission of several lens types, and on the accuracy of the instrument, and a proposal is presented for changing over to the new system.

"Animation—16 mm.," by Ben B. Jaffeson, Hugh Harmon Productions, Hollywood, Calif. For many years, animation, when mentioned was associated with cartoon, and the thought implied was a simple process of the changing of successive drawings over a rendered background and photographed by a stop motion 16 mm. camera. Animation today, however, results from the creation of effects not possible in wild shooting. Perfect registration of film in the gate of the camera has been—and still is—the most difficult problem confronting 16 mm. endeavors in animation. Recent advances in 16 mm. animation stop-motion cameras have eradicated many of these registration problems. Animation lighting, for the most part, is flat, even lighting on a flat surface upon registered art work placed on a peg system. This problem is most interesting and important in the creation of special effects, process combination, matte percentage exposure, double exposure, and duplication or exact reproduction of rendered art work in black-and-white as well as color.

Sound Recording

"The 316-D Western Electric 16 mm. Portable Sound Recording System," by John G. Frayne, Western Electric Co., Hollywood, Calif. This recording system is comprised of a two-position portable mixer, a combined main amplifier and noise-reduction unit, a power-supply unit, and a film recording machine. The 16 mm. recorder is equipped to make sound tracks either in the normal position on the film or that required for printing on reversal emulsions.

"Light Weight Recorders for 35 mm. and 16 mm. Film," by M. E. Collins, Radio Corporation of America, Hollywood, Calif. These recorders have been designed to provide improved light weight recording machines capable of recording any of the standard types of neative or direct positive sound tracks. Separate recorders for 35 mm. and 16 mm. film are available, each being designed for optimum performance. Chief features are improved performance, dependable operation, compactness, minimum weight, and accessibility for servicing. The film may be driven through the head assembly in either direction with equal stability. An automatic film take-up mechanism of the self-reversing type is provided.

Other Subjects

A new type microphone tilting device for studios was described in paper by B. H. Denny and R. J. Carr of Paramount Studios, Hollywood.

A 16 mm. processing control sensitometer, disclosed by George W. Colburn of Chicago, was developed with considerations of economy, may be home made, and its portability.

Norwood L. Simmons and Emery Huse, of Eastman Kodak Co., Hollywood, described current duplicating techniques used in Hollywood, and compared the practices employed at five different Hollywood laboratories, and considerable variation was found in the degree of fidelity of the duplicating procedure at the plants studied.

George E. H. Hanson, of Warner Bros. Studios, Burbank, presented "Synchronized 16 mm. Sound and Picture Projection at 16 Frames Per Second," in which he described a method of re-recording 35 mm. sound track to obtain a 16 mm. track which will reproduce synchronously with a 16 mm. picture projected at 16 frames per second. Only necessary modification of a standard re-recording channel to perform this operation is the substitution of an 1800 r.p.m. synchronous motor for the standard 1200 r.p.m. motor on one 35 mm. sound head, he disclosed.

T. J. Morgan, Ampro Corp., Chicago, outlined the design objectives involved in the production of a prevision-made 8 mm. projector. Factors to be considered, he stated were: sales attractiveness in styling, distinctiveness and simplicity of appearance; problems in film handling; simplification of functions; minimizing operational controls; illumination efficiency as correlated with film movement and optics; temperature control; quality of projection; and production cost economy in parts and assemblies. H. H. Wilson of Ampro outlined same factors for design and manufacture of a portable 16 mm. sound projector.

Mervin W. La Rue, Sr., and Mervin W. La Rue, Jr., of Bell & Howell Co., Chicago, presented "Special Adaptations and Application of 16 mm. Motion Picture Cameras to Medical and Scientific Needs." Paper described equipment especially designed to accomplish eardrum and other macrophotography, as well as the construction and functional operation of equipment for photomicrography. Demonstration reel was shown of equipment in operation.

Paper on "Naval Photography in Testing, Research and Development" was presented by J. E. Aiken, Navy Photographic Center, Washington. "Some Problems of a 16 mm. Cinematographer" were described by Jack F. McCosky, professional 16 mm. photographer.

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11. Pictorial Continuity

By CHARLES LORING

Reprinted Jan '54 AC

ONE of the elements that helps lift an amateur film into the professional class is *pictorial continuity*—which in simple language means the correct *visual* tying together of separate scenes and sequences to form a coherent, smoothly flowing motion picture story. It is the factor that gives a pattern of unity to the whole production, the blending ingredient which allows the audience to lose itself in the screen narrative, undistracted by the mechanics of the medium.

In planning for *pictorial continuity*, the film-maker shapes and molds the various scenes so that they will fit into the cinematic whole as smoothly as the pieces of a jig-saw puzzle dove-tail together. He plans each scene so that it contains elements that link it visually with the scenes that precede and follow it.

Pictorial continuity depends upon two factors: composition and pattern of action. The first is a property of camera and lens; the second stems from the movement of characters about the set—but the two are closely inter-related and depend upon each other for force.

Slanting for the Audience

When photographing a scene, the cameraman can see at a glance the entire situation and the locale in which it is taking place. In addition, he is able from time to time to take his eye away from the viewfinder and the action which it confines, refreshing his memory as to the general surroundings.

Not so the audience. It sees only what the camera lens allows it to see, and unless the overall locale is first clearly presented or suggested, the audience feels cheated and remains curious as to the context of the action shown. For this reason, the cameraman must first clearly *establish* the general locale of a fresh situation. Since the audience's memory is short, retaining the details of only the last two or three scenes shown, the locale must also be *re-established* from time to time.

Re-establishing can be done in a variety of ways. First, by simply backing off to take in a wider angle of the action and surroundings. Secondly, by *panning* your subject from one location to another that has been previously established. The third, and perhaps most *cinematic* method is to link up two elements of the same scene showing their spacial relationship. Thus, the foreground includes some object or character previously established, and the audience is able to re-orient itself by means of this element.

It is all too easy to "lose" your audience by concentrating on medium shots and close-ups for too long a time. Action should be staged in such a way that occasional long shots fall naturally into the pattern. Save your close-ups for emphatic statements. Use medium shots for general action, and cut to long shots for the purpose of establishing and re-establishing in order to maintain the sweep of the overall scene.

A good pattern to follow is the basic sequence of long shot, medium shot, close-up, and re-establishing shot. This duplicates the normal concentration of a person entering a new situation. His first glimpse of the subject is normally a long shot. Then, without changing position, he narrows his vision down to a point-of-view that can be compared with a medium shot. Ultimately, he moves in for a more concentrated view corresponding with a close-up—the shot, which in any film, is the most emphatic angle possible. Finally, he moves back or glances about to refresh his memory as to the surroundings of the subject.

While this basic sequence is effective and uncomplicated, it is by no means an iron-clad formula—and it should never be followed so rigidly that the sense of the action is lost. In the final analysis, it is the action within a scene that should determine the angle and image size to be used on that particular scene.

Changing Point-of-View

The lens, acting as the "eye" of the camera, adopts a certain point-of-view for each scene, depending upon the angle and image size which the cinematographer feels best portrays the action of the scene. Therefore, every transition to another scene or sequence represents a shift in point-of-view. These changes should be clean and definite, but with a sense of flow from one to another permitting an uninterrupted unfolding of the story.

In order for two scenes to cut together smoothly, we must change the composition, either by moving in closer to the subject, by using a different focal-length lens, or by changing angle completely. If two scenes showing continuous action are shot from the same or very similar angles, a disturbing "jump" cut will result.

If, on the other hand, too great a change of angle is made in cutting to another scene, the audience will be jolted and momentarily lost. Therefore, should it be necessary for a radical change of angle to be made, the jolt may be minimized either by momentarily cutting away from the scene, or by using a *dolly*, *pan*, or *follow* shot to lead your audience smoothly from one composition to another.

Here, the moving camera comes into its own, for it is the smoothest possible way to change composition without losing the audience. Used correctly, it can link up two to ten or more separate compositions within a single scene, at all times preserving the relationship of one component with the rest.

Directional Continuity

In sequences which show a subject moving or facing in a certain direction, it is important that each scene preserve a consistency of screen direction, regardless of the size of shot.

For example, if a character is shown walking down the street from right to left, it would be a disturbing jolt if in the following scene he were shown going from left to right. It would appear as though he were retracing his steps. Actually, this is an error which is all too common in the films of the average amateur and many professionals.

If, however, it should become necessary to change direction suddenly, the jump can be minimized by showing the subject turning a corner, by cutting to a neutral (straight-on) shot of the subject, or by cutting away momentarily to another segment of the situation.

The reverse of this approach can sometimes be used to good advantage in order to show conflict between two opposing elements, such as a couple of locomotives rushing toward each other from different directions. By inter-cutting shots of the two roaring toward each other, a certain forceful suspense is created.

If you intend to change locales on a sequence in which your subject is moving, let him walk *out* of one scene and *into* the next. Unless you do so, there will be a disturbing jolt as the background behind him suddenly changes completely in character. If this change of locale between scenes also involves a lapse of time, it is better to *dissolve* or *wipe* rather than *cut* from the one scene to the other. In this case, the character should *not* leave the frame.

Sometimes the entrance and exit of a character into a scene involve diagonal lines of action, so that he enters or leaves from a corner of the screen. In such a case, it is important that a con-

(Continued on Page 189)

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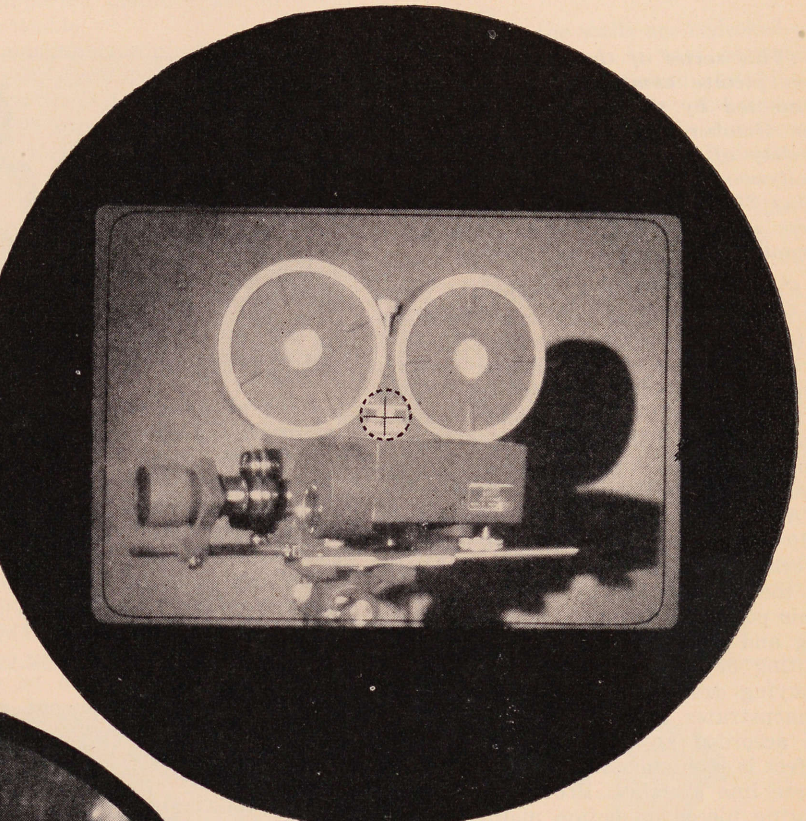
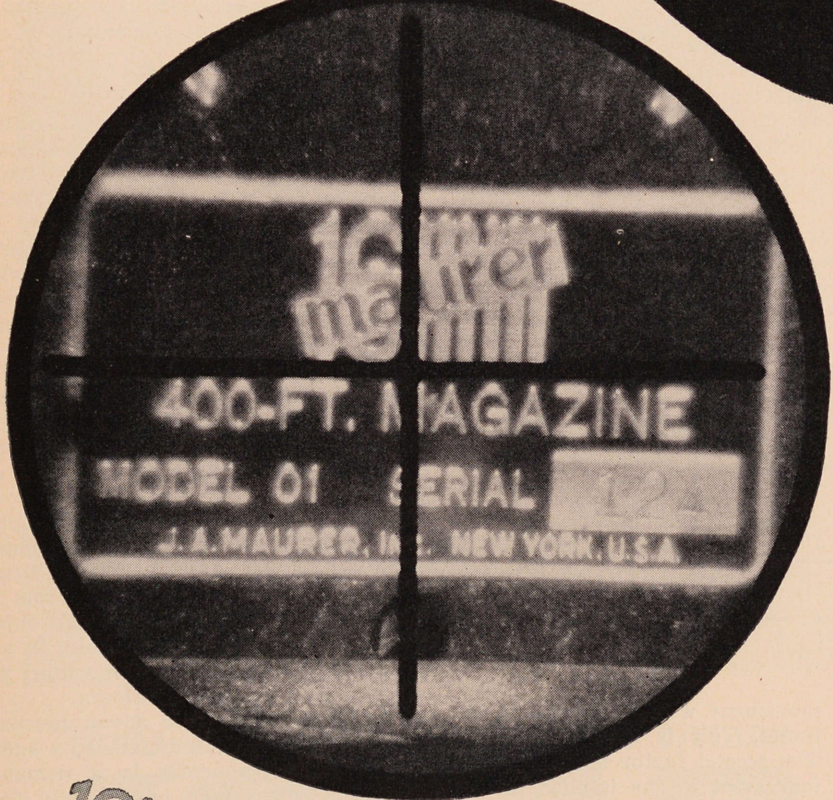
For critical focusing of the Maurer 16-mm Professional Camera, the low power objective lens of the viewing microscope, used to observe the full field of the taking lens (as shown in the photograph at the right), is replaced by a high power objective which gives extremely high magnification of the area within the dotted circle in the center of the field.

The magnified image is shown in the picture below, which was taken directly through the high power focusing system of the Maurer Camera.





This critical focusing system eliminates all errors resulting from incorrect lens calibration, back lash in the lens mount, change of focus when lenses are stopped down, and the necessity of estimating points between the distances marked on the focusing scale of the lens.

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Composition In Motion Pictures

Part 3. — Dynamic Composition

By Howard T. Souther

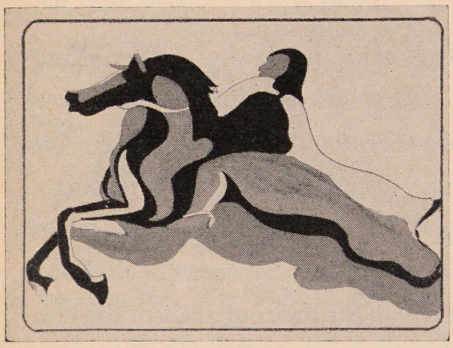
(Stephens Manufacturing Co., Los Angeles, Calif.)

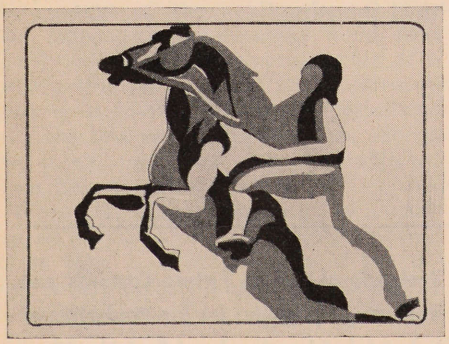
(This series of three articles on motion picture composition was originally presented by the author as a paper at the October, 1946, convention of the Society of Motion Picture Engineers in Hollywood. It was repeated at the October 28th meeting of the American Society of Cinematographers, from which stenotyped transcript was made.)

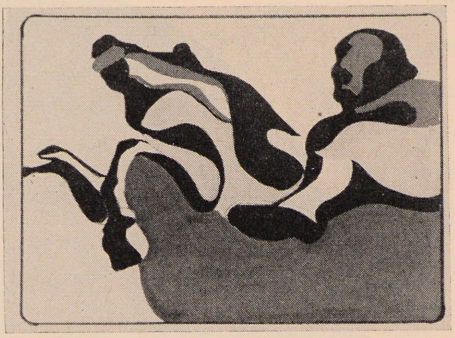
Foreword. The superior illusion given to a scene by movement must be taken into account in the compositional task. A previous section in this chapter involves space and spatial development in the frame to form a unified whole. This section demands that we take into account *time,* and direction taken by our elements in the frame through time.

And though this section deals essentially with kinetic movement, we must not overlook the potential movement of form in the frame which is primarily static. This potential movement is given meaning and purpose through the process of editing or cutting the film. The accompanying drawings of the rearing horse demonstrates the dynamism which may be accorded an inanimate statue. The effect is unmistakably powerful in these three line sketches. Providing that the editing pieces in motion picture film of these three shots are of the necessary shortness, the effect is one of overwhelming, inescapable movement.

Observe the first sketch:





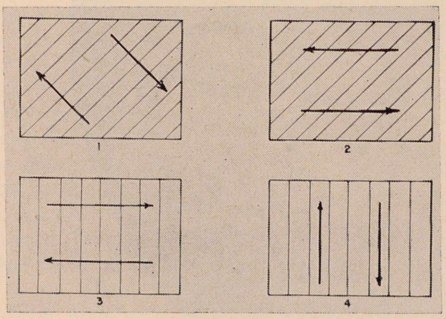


Here we have made use of the power latent in a diagonal, compositional line through the frame. The second shot adds the vitality of foreshortening and the illusion of foreward movement due to the increased size of the image. The third shot takes supreme initiative with an acute camera angle, violent foreshortening and powerful contrast of dark mass against light background. Thus we see that the dynamics of editing composition without which there can be no proper determination of movement within the frame.

The obvious derived from postulate is this: Speed and direction of movement within the frame are directly related to the manner in which the scene is to be cut and edited.

Plan of Kinetic Movement Within the Frame

If we consider the four schemes of movement indicated in the adjacent figure, we shall be led to determine two factors. The first of these is the direction of the movement with reference to the frame limits. This is indicated by the arrow. The second factor is the relation of the movement to the implied line of the surrounding background. The composition of the static surroundings is formally indicated by parallel lines in the schemes.



In the first figure, the background is composed along a diagonal of the frame. The movement is in a direction contrary to the diagonal. The dynamism of the composition is sharply emphasized because of:

1. The contraposed movement of the object against the background line.
2. Conflict of the movement with reference to the sides of the frame.

In the second figure, the dynamic quality is reduced by half because the movement follows the line of the frame. The third figure shows one-half the power found in the first figure because the direction of the movement is parallel with the frame lines, notwithstanding the fact that it opposes the background line. The fourth figure displays the greatest weakness in dynamic effect. Not only does the movement follow the frame line, but it follows also the direction of the background line.

Now we must not interpret the foregoing in such a manner as to presume a necessary search for the greatest dynamism possible in the shot. Quite often the script will demand that we use the weakened form of compostional construction. We must satisfy the particular scenario or directorial demand.

Panning

Beside suggested movement and dynamism through compositional editing, and beside the movements of objects or elements themselves within the frame, we have the kinetic movement caused by the motion of the camera itself.

Rapid movement is obtained through the release of a dampening device which may consist of a series of gears working as a smooth frictional delay in the camera free-head. Engaging these gears retards rapid movement but makes for more regulated control. Remember also, that the latent inertia of between 175 and 350 pounds of camera and blimp contibute materially to this smooth motion.

Panning the camera adapts itself easily to holding within the frame objects both near and far away. Very naturally, the farther away the object from the camera, the greater can be the objects speed of movement; conversely, in such case the slower can be the actual panning movement of the camera.

At times it may be advantageous to make a rapid pan and come to a sudden stop. Not infrequently is it demanded that the cameraman pan rapidly for a reaction to the scene being filmed outside of the static frame limit. Where the action is intense, the speed with which this is done becomes important. In such cases, a difficulty arises inasmuch as present cameras have no suitable means of indicating the operative cameraman's point of stoppage. The tendency is to overshoot the boundary of the reaction composition—yes, and sometimes the set! How efficacious would be a small hydraulic stop on the free-head, supplying smooth but definite cessation of movement at the proper framing position.

Dollying the Camera

So far we have considered shots involving movement where the camera is stationary. So also, we must consider shots involving movement of the camera where the object is stationary, in which case we may obtain *intra-shot* dynamism.

Going back a page, we may again consider the dynamic effect produced through rapid editing of the rearing horse through three separate shots. We could also achieve a commensurate effect through one continuous editing piece, by dollying in with the camera and gradually panning up. Whether the dollying effect, or the flashing effect of the independent cuts contribute more to the final emotional result is a matter of directional judgement with reference to what has happened before, and what will transpire immediately after this scene. It is simply the case of a different tool being able to supply a different effect.

Obviously, dollying precludes photographing objects other than those relatively close.

Crane or Boom Shots

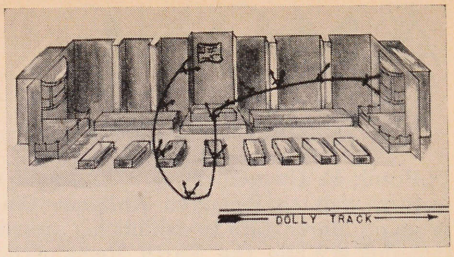
The crane allows a great latitude of movement. Its use, however, demands operative space. This valuable mechanism provides us with the means of including an extreme longshot and a closeup in the same editing piece. Not only is the crane capable of the lateral motion of the dolly, but it allows up and down movement in sweeps of thirty or forty feet. Long, sweeping diagonal movements are possible with this device. Effects of rapid zooming through incredibly unsupported distance are in every way practicable.

In the earlier days of the motion picture camera, the impulse was to borrow the compositional forms of the old masters. The relative static quality of the long and medium shots of the "Ten Commandments" and "Quo Vadis" shows that they were not free of this mechanical copying.

The result was that the transition into medium and closeup shots through flash cuts, destroyed the compositional unity of the theme as a whole. There was no way in which the audience could traverse the extereme distances involved, without interrupting its conception of unity and editorial completeness.

The boom or crane was the answer to this problem. If we may resort to a rhetorical example instead of actual illustration of the manner in which the crane fulfills its purpose, observe the development in the situation below of the cinematic method with the camera crane.

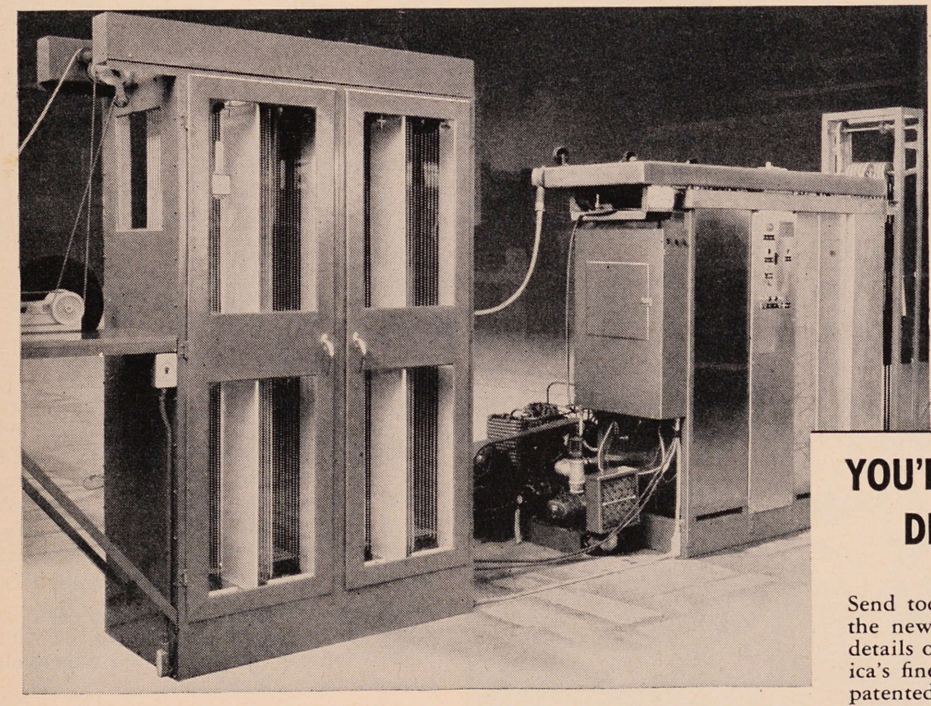
Scene: A large banquet-hall over 300 feet long . . . the walls are bedecked with American flags . . . a vast assemblage of people are foregathered at tables below a raised dias against the center of one of the walls . . . it is the occasion of the inauguration of the President of the United States.

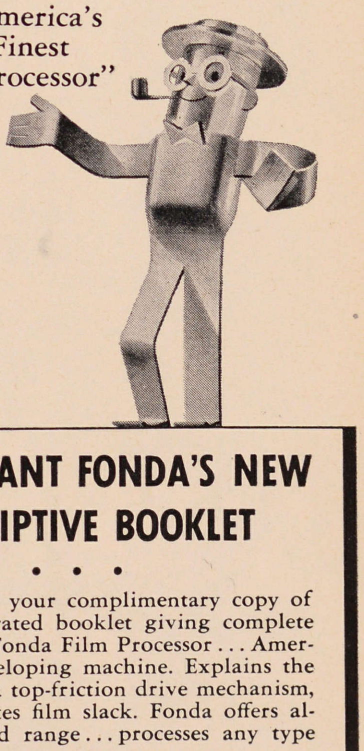


Action: The script demands that we establish in a long-shot the feeling of the huge hall, and the importance of the occasion. It asks us then to direct our attention to the speaker on the dais. As the speaker takes the floor, we must record the opening words of his address and his reaction to the important occasion. As his speech progresses, the editorial composition requires that we record the reaction to his speech of his mother in the box of hono *over 100 feet away.*

Method: The diagram shows the construction of the "misen scene." The mechanics of the movements are carefully prepared and fully rehearsed beforehand.

(Continued on Page 178)





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AMONG THE MOVIE CLUBS

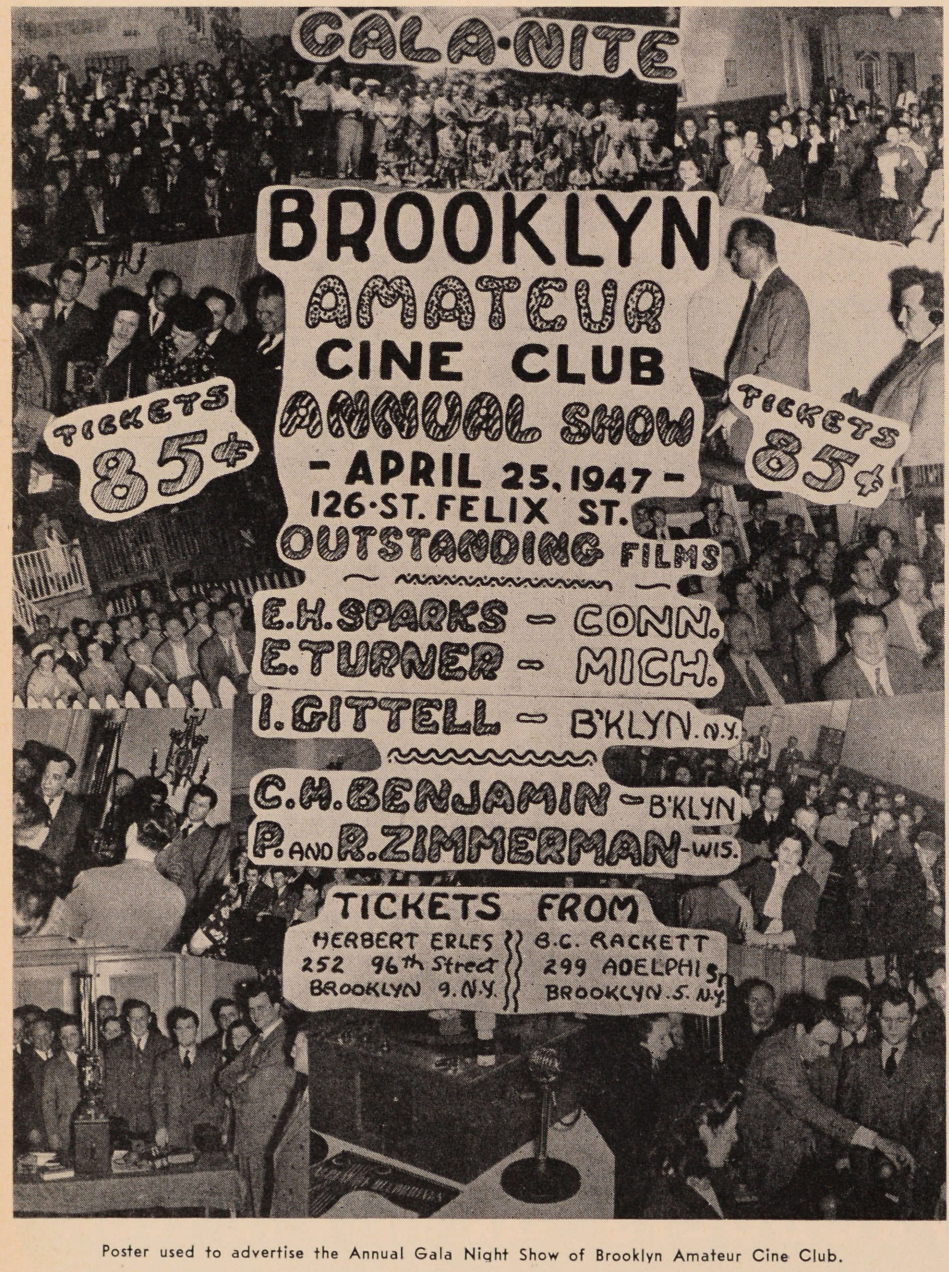
Brooklyn Amateur

Frank E. Gunnell, F. A. C. L., paid a return visit to Brooklyn Amateur Cine Club on March 19th to exhibit his award-winning "While the Earth Remaineth." "Reflections," and "Bohemian Baloney," from ACL library, completed the regular film programs; and John Manfrin displayed another in his series of clinic films.

Second "Guest Night" of the season was held on April 2nd, at which time several contest runners-up and winners were shown, including: "Barbara Sue Goes Camping," by H. Cahn; "Virginia," by Fred Ursini; "Nutmeg Rambles," by Horace Guthman; "Summer Trails," by Charles Benjamin; "Designed by Nature," by Irving Gittell; and 35 mm. kodachrome slides of Banff National Park by Gene Adams.

Club business was the rule at the April 16th meeting, with films programmed comprising "Calling Dr. Kildare," and "Murder in Central Park," by Dr. MacDonald Brown.

"Gala Night," one of the annual highlights in the club's activities ,was held at the St. Felix St. theater on evening of April 25th, with capacity audience of members and guests viewing splendid program of kodachrome amateur films, comprising: "Dog House Blues," by E. H. Sparks of Connecticut; "Tiny Town," by Edmund Turner of Detroit; "Vacation with Pay," by member Irving Gittell; "Safari," by president Charles Benjamin; and "Dizzy Top," by Patricia and Ryne Zimmerman of Wisconsin.



Poster used to advertise the Annual Gala Night Show of Brooklyn Amateur Cine Club.

San Francisco Cinema

Films shown at the March 18th meeting of Cinema Club of San Francisco included: "Yellowstone National Park," 300 feet in 8 mm. kodachrome by Rudy Arfsten; and "Operations Crossroads," 16 mm. color produced by the U. S. Navy of the Bikini atom bomb tests. Ed Petherick showed his kodachrome slides of "A Night at the Fair," and G. M. Tabet displayed an 8 mm. developing tank which he designed and constructed of bakelite.

At the April 15th meeting, Dave Redfield gave a particularly informative description of the various kinds of movie films available at this time, and also explained best methods of splicing. Film program presented comprised: "Winter at Niagara and in Washington," by Ed Sargent; "America the Beautiful," 800 feet of color loaned by U. S. Treasury Department; and "Silent Service," 1,300 feet of color and sound from the U. S. Navy describing operations of the submarine service.

Los Angeles Cinema

Regular meeting of Los Angeles Cinema Club was held at Ebell Club hall on April 7th, with program comprising: "Monuments of Ancient Mexico," by George Calliant; Mildred Zimmerman's "Long Island"; "Yellowstone and the Grand Tetons," by Paul L. Hoefler; and Dr. E. Leslie Eames' 35 mm. kodachrome slides on "The Mother Lode Country."

Mid-year film contest has been set for July, with two classifications: novice, and un-cut film; the latter to be on subject of "The City of Los Angeles," or any activities or industries of the community. Special field trip for members has been set for August 10th.

Philadelphia Cinema

Film program presented at the April 8th meeting of Philadelphia Cinema Club, held at Franklin Institute, included: "Reel Trouble," by Walter Bruner; "My Vacation On the Wing," by Victor Fritz; "Ace of Darts," by Robert Haentze; and "Clear Track Ahead," Pennsylvania Railroad color soundfilm.

Annual dinner meeting was held on April 15th, at which time the three prize-winning pictures of the recent club contest were shown.

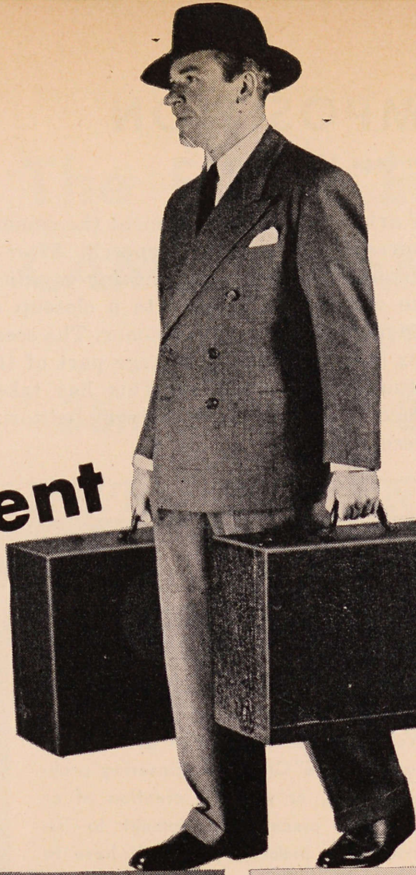
Minneapolis Octo Cine

George K. Culbertson gave a demonstration and talk on his Fideltone dual turntable apparatus at the March 25th meeting of Minneapolis Octo Cine Guild. held at the Hasty Tasty. Film taken by the club's project committee during the past several weeks was also exhibited.

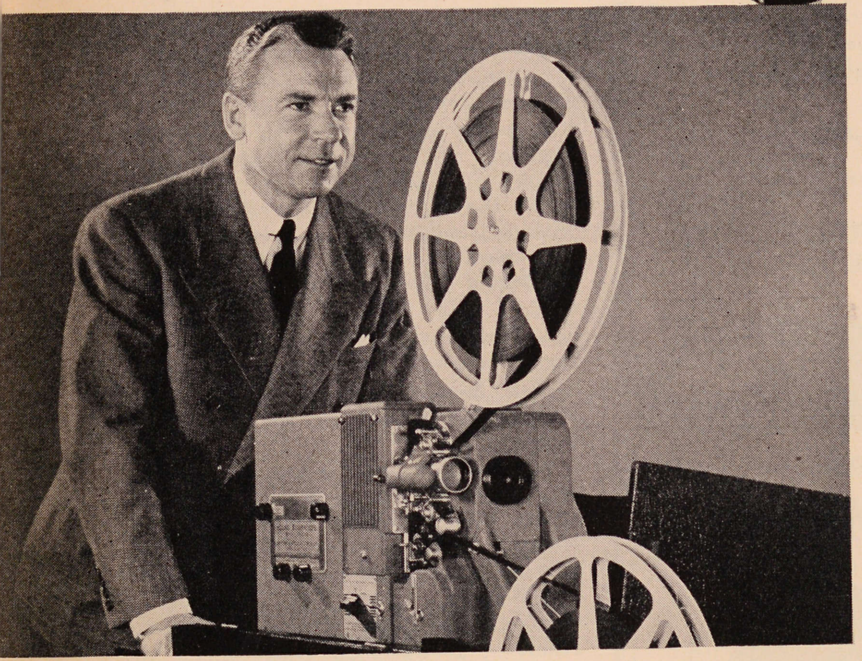
(More Club News on Page 183)

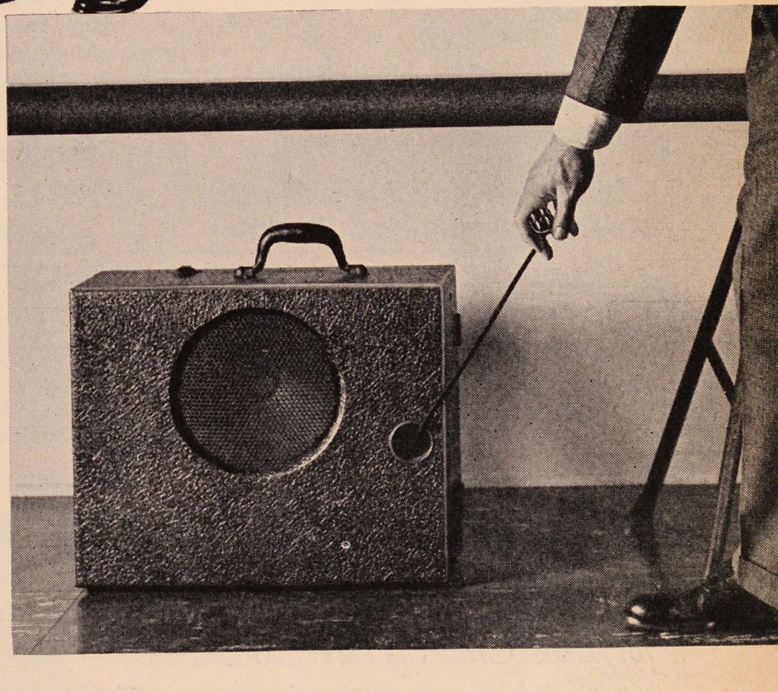
SUPERB MOVIE SHOWS

sound or silent in 2-case unit



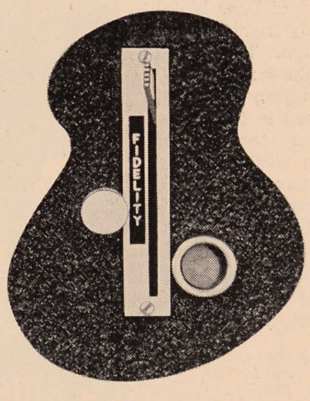
Projector, speaker, power and connecting cords, accessories and "spares," several reels of film—*everything but the screen*—"carries" comfortably in 2 cases





Sound Kodascope FS-10-N is a remarkably versatile all-purpose projector for the very finest 16mm. showings—sound or silent—in home, club, or auditorium. By means of a phonograph turntable or microphone, you can add music or voice to "silent" shows . . . and you can "mix" either with the output from a sound track. Expertly designed and constructed, its controls are few, simple, and positive in action. $450—*complete.*

In limited supply now, more and more "FS-10-N's" are on the way. Keep in touch with your Kodak dealer . . . Eastman Kodak Company, Rochester 4, N. Y.



Finger-tip adjustment of the unique FIDELITY CONTROL assures finest tonal quality from any 16mm. sound film . . . original or "dupe" . . . straight 16mm. or reduction from 35mm. Brilliant shows—true sound reproduction—with Sound Kodascope FS-10-N!

SOUND KODASCOPE FS-10-N

Kodak

DYNAMIC COMPOSITION

(Continued from Page 175)

The scene opens with a medium shot of a large American flag. A band is playing the Star Spangled Banner. As the music goes on, the camera pulls back in a wide arc to the left, lowering slowly all the while. In the extreme backward and center position, the camera comes to rest. Situated in the upper center of the frame is the raised dais, and the speaker. The music stops and the speaker arises. With his movement the camera moves in to record his speech. After a certain time, and with *lightning rapidity,* the camera shoots over to a closeup of the mother in the box of honor. The scene has been established, a large part of the situation has unfolded. This has taken place in one smoothly flowing editorial piece.

The actual setting up of this shot is a complicated piece of business.

The day before the actual filming of this particular scene, the director informs the head grip of the picture troupe of his approximate desire with reference to camera movement. The grip chooses the proper size boom, and lays his boom tract the night before. The gaffer or lighting foreman, "roughs in" the lighting from the various angles observed and ascertains the presence of necessary illuminating units. The property man moves his furniture to accomodate the boom movements.

When actual shooting begins, the entire scene is timed and cues are given for the various moves with relation to sound and action.

The finish of the scene will probably result in a strip of film two minutes long, and require the entire day to shoot.

* * *

Certain empirical rules for camera movements have been prescribed through years of experiment and experience. By "empirical" we imply the thought that there is no *real* reason for their existence. They seem to work in most cases and therefore mention of them at this time is in order.

1. All moves should be as slow as the action or motive will permit.

2. Anticipation helps to start and stop a panning movement.

3. A cut should never be made from a moving shot to a static shot. If the camera cuts while movement is taking place, the following scene should open with movement of the camera. Action or camera movement should be stopped or started in a separate shot, if necessary.

4. Fast moves should be used only for effects.

Now, here are several hard and fast rules which make their appeal to common sense:

(1) Camera moves should be perfectly smooth, never jerky or bumpy. The scope of the camera implies terrific leverage. Every irregularity in movement is tremendously amplified on the screen.

(2) Certain speeds of pan against vertical composition in the background result in a "harmonic beat" which appears as a jerky movement of the background. This is caused by the interrelationship of the background speed against the twenty-four jerks of the film pull down movement. This is most apparent in cases of a contrasted sharp background. In an evenly toned background, this jerking motion resolves itself into a non-irritating blur.

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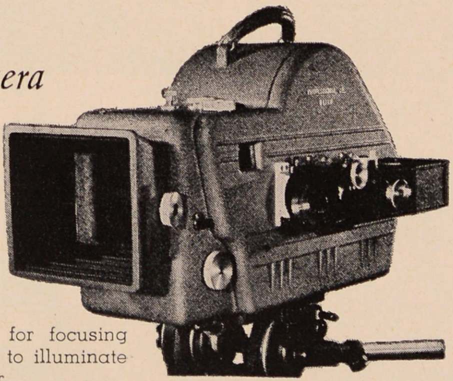

This Blimp, constructed of Dow Metal (magnesium) is thoroughly insulated for absolutely silent operation. The blimp has these exclusive features: • follow focus attachment for changing lens calibrations while the camera is in operation • viewing magnifier mounted on top of blimp for focusing while camera is mounted in blimp • arrangement for opening camera viewing aperature trap for focusing from the outside of the blimp • pilot lights to illuminate lens calibrations and film footage indicator.

Blimp takes synchronous motor drive which couples to camera. It has a leather carrying handle mounted at the top. A dovetail bracket is provided to mount an erect image view-finder for following action.

Manufactured exclusively by the Makers of "Professional Junior" Tripods and Other Fine Camera Accessories.

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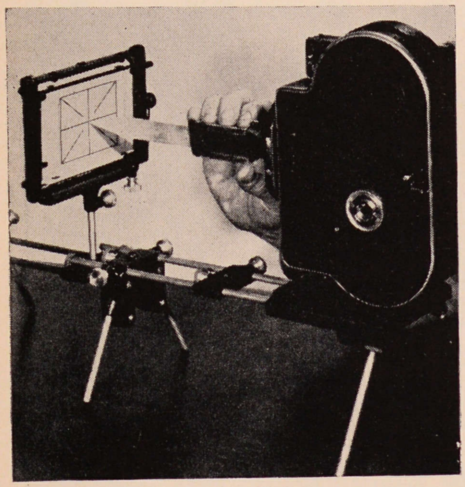
Mult-Efex Title Aligner

All amateur movie makers will be glad to learn that Bardwell & McAllister, Inc. of Hollywood, manufacturers of the Mult-Efex Titler for home movies, has perfected a device which makes it possible to align titles horizontally and vertically. This new product is the Mult-Efex Aligner.



As shown in the illustration, one end engages with the lens-mounting of the camera while the other pointed end finds the centerline of the title frame. It fits all lens-mounts on any 8mm. or 16mm. movie camera and is constructed so that no part of it can touch the lens while in use.

This accessory can also be used for aligning small objects which are being photographed at extremely close range.

The Mult-Efex Aligner comes as an added accessory with the Mult-Efex Titler at no extra charge, but will be sold separately for use with other makes of titlers.

Titler Film Available

Bardwell & McAllister announces the release of a 16 mm. color motion picture film that demonstrated the Mult-Efex Titler for amateur movie makers, and the many types of special effects which can be obtained by its use.

Distributors and dealers are now loaning out prints of the film to camera clubs and other interested groups which might be interested in learning to title pictures and to improve quality of titling. The equipment provides amateurs with opportunity to make titles with the professional touch of the Hollywood studios. A number of amateur movie clubs have already booked and showed the reel at meetings, and it can be recommended for showings by all such clubs.

The film is 300 feet of intensely interesting action in full color; showing in detail how to make zooms, fadeouts, forward-and-backs, wipes, double exposures, scrolls, flip-flops, swing-arounds, rolls, and other types of attractive and unusual titles—as well as trick shots and special effects.

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Studio Art Directors Entertained By A. S. C.

ART DIRECTORS FROM HOLLYWOOD STUDIOS were guests of A.S.C. members at the clubhouse on evening of April 7th. Caught by photographer C. A. Peterson are: (1) Fred Jackman, A.S.C.; Leonard Smith, A.S.C.; William Ferrari, president of Motion Picture Art Directors; Leon Shamroy, A.S.C.; and Ray Rennahan, A.S.C. (2) Academy Award winners on "The Yearling," Charles Rosher, A.S.C.; Art Director Paul Groesse; Leonard Smith, A.S.C.; and Arthur Arling, A.S.C. (3) Art Directors, Danny Hall, Jack Holden, Ferrari, and business representative Norman Lowenstein. (4) Warners Studio group, Arthur Edeson, A.S.C.; Art Director Bob Haas; Sol Polito, A.S.C.; and Ernest Haller, A.S.C. (5) Art Director Ernst Fegyte in center of A.S.C. group, comprising Karl Struss, Charles Rosher, Victor Milner, and George Folsey. (6) From RKO Studios, Nick Musuraca, A.S.C.; Art Director Carroll Clark; and Robert De Grasse, A.S.C.

SEVERAL prominent art directors of the studios were guests of members of the American Society of Cinematographers at dinner meeting held at the A.S.C. clubhouse on evening of April 7th. Invitations, extended by individual members to their art director associates at the various studios, were in line with the policy of A.S.C. leaders to generate closer spirit of camaraderie and cooperation between the Directors of Photography and other artists in the studios. Because of the limited capacity of the clubhouse for serving, only a relatively few members of the Society of Motion Picture Art Directors can be invited for any one time, but the plan is to extend invitations to groups of the art directors so that eventually every one will have been a guest at one of the famous A.S.C. dinners.

President William Ferrari of the Society of Motion Picture Art Directors headed the initial contingent of guests from his group. In a brief speech, he lauded the accomplishments of the A.S.C., and expressed appreciation for the invitations for such a splendid social get-together away from the pressure of production. Among the art directors present were: Steve Gooson, Ferrari, Ernest Fegyte, Paul Grosse, Bob Haas, Carroll Clark, Danny Hall, Jack Holden, Sam Woll and Norman Lowenstein.

G. E.'s New Exposure Meter Accessory

A means of measuring higher levels of illumination through the use of three new clip-on type multipliers has been announced by the General Electric Company. These multipliers will extend the range of all DW-48 and DW-58 exposure meters up to 7000 foot-candles.

To use the multipliers on G-E exposure meters it is only necessary to remove the hood from the meter and clip on the multiplier. This method of measuring exposure is known as the "incident-light" method, and is increasing in popularity among professional photographers.

The incident-light multipliers are available in three ratios which will measure light up to 700, 1400, and 7000 foot-candles respectively; they may be obtained through photographic dealers.

New 16mm. Distributor in India

Ramoni N. Dixit has established Ace Service in Madras, India, and writes he desires to contact manufacturers of 16 mm. cameras, projectors, and allied accessories to function as distributor of such products for India Burma and Ceylon. He is also interested in serving as distributor for that area of 16 mm. pictures, including educational and classroom films. Dixit can be contacted at 22/79 Sembudoss Street, Madras 1, India.

Camera Mart List

List of professional equipment being distributed by Camera Mart, 70 West 45th Street, New York City, is now available to producers of 16, 35 mm. and slidefilm producers. List includes cameras, developing machines, sound and silent cameras, recorders, projectors, amplifiers, studio and laboratory equipment —both new and used.

So. African Exec in U. S.

J. U. Horvitch, director of Photo Agencies of Johannesburg, South Africa, is currently in New York looking over post-war models of motion picture and photographic equipment to arrange distribution deals for South Africa. Horvitch is headquartering at Anglo-African Shipping Co., 45 Fifth Avenue, New York 16, for the next three months.

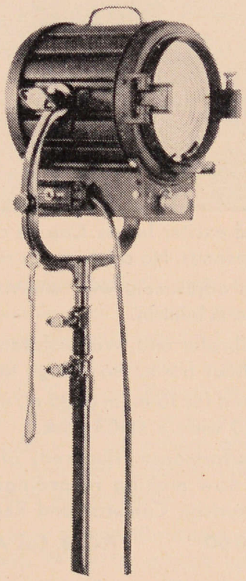
Bolex Cameras Reported Stolen

American Bolex Co., Inc., 521 Fifth Avenue, New York 17, N.Y., announces that the following Bolex H-16 motion picture cameras, complete with accessories and Kern-Switar 1" f/1.4 lenses were stolen: No. 32441; 32806; 32809; 32810; 32811; 32813; 32814; 32821; 32822. The company would appreciate hearing from anyone who may come across any of these cameras.

REMEMBER WHEN...

...Movies couldn't talk and matinee idols wore sideburns? It was in that era that Mole-Richardson revolutionized motion picture lighting with high wattage incandescent lights. One of the first deliveries of these new lights was made to the old Universal lot, where they were used with precedent setting success on the "Broadway" set...first of the "super-colossal" musicals.

In 1947 Mole-Richardson Wins Another "Oscar"



This year the Academy of Motion Picture Arts & Sciences awarded a third citation to the Mole-Richardson Co., for developing a new high intensity arc light. The Solarspot, pictured at left, was an "Oscar" winner too, receiving an Academy award in 1944. Made in 750, 2,000 and 5,000 watt sizes, it is universally preferred by those who demand perfection in lighting equipment.

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"Triumph" in Low Key

(Continued from Page 167)

it suddenly appears quite different when you arrive on the set to film it.

"If you worry too much about the composition of every scene before you are actually ready to shoot that scene, you will probably end up with an uneven lighting quality, a confusion of angles, and a generally 'nervous' style of photography," he points out. "While keeping in mind the overall mood of the sequence, the cinematographer must direct his attention principally to the scene at hand, as many of the important decisions regarding approach can only be made as the action is developed on the sound stage."

He is opposed to the "arty" treatments which some cinematographers find it necessary to inject into their photography, just for the sake of being different. "It isn't necessary to complicate your style with trick lighting effects or odd, surrealistic angles," he claims. "Perhaps these tricks will appeal to a few artistic highbrows, but they are way over the head of the average moviegoer."

The simplicity of which he speaks applies, not only to his style of lighting and composition, but also to the choice of mechanical elements which he uses to achieve his effects. He rarely uses more than one focal-length lens on a picture, never more than three. His favorite is a 30 mm. wide-angle lens whose forceful perspective adds emphasis to his compositions. Once he has selected a lens in keeping with his approach to a particular film, he uses it consistently, so that the entire picture has a unified visual point-of-view.

One of the finest compliments ever paid a cinematographer came from Lewis Milestone, director of "Arch of Triumph," during filming of the picture.

"Metty," he observed, "is a perfectionist for detail. Small actions that build compelling overall mood never escape his eye. It is this knack for being able to pick out fine details and build them up into something of definite value that lifts a Metty-filmed story out of the mediocre class and places it with the best of modern creative art."

Los Angeles Eight

"Free Wheeling in the Utah Parks," 16 mm. color film by Stan Midgley which won first prize in the Union Pacific contest last year, featured the April 8th meeting of the Los Angeles 8mm. Club, held at Arden Farms clubhouse.

Year with "Yearling"

(Continued from Page 169)

erate use of fill light. This control of shadow detail on intermediate planes gave an added quality of depth.

Shadows on the face had the familiar tendency of going red. To get a natural gray tone, a complimentary blue-green light was projected into the shadows. The result . . . natural shadow tones with detail.

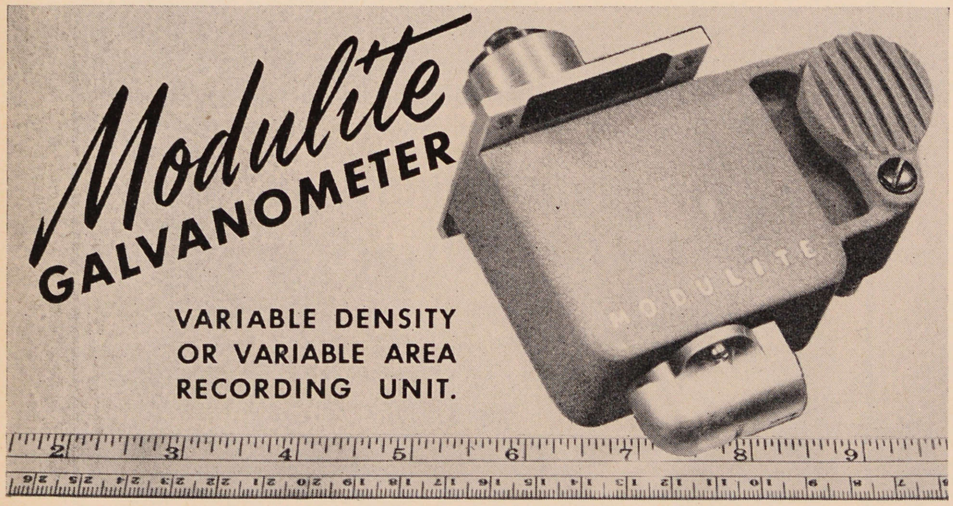
Those of you who read "The Yearling" probably will notice the similarity of a number of scenes to some of the illustrations in the book by artist N. C. Wyeth. This was a deliberate effort to recreate the compositions that became fixed impressions with many readers of the book. These scenes were Jody and the flutter mill, Pa Baxter at the Forrester's cabin telling the story of the bear fight, the fight at Volusia in front of Boyles' store, and the burial of Fodderwing.

At their best, domestic animals are a great problem to both director and cameraman. With wild animals, 469 of them, there was an unbelievable amount of temperament to cope with. Score upon score of takes were made to get just the right piece of action to fit a particular scene in the script. Because the deer would bolt at the slightest sound or quick movement, the customary procedures for getting a scene under way were revised. All warning signals and starting buzzers were silenced; all personnel on the set remained absolutely still before and during the shooting of all animal scenes.

To aid in keeping the deer within the confines of the camera angle, technicians strung very fine wires along the paths they were to move. The wires were connected to an electric fence unit so that every time an animal strayed from the path, he felt a slight jolt. After a little while the deer got the idea and moved in the desired direction.

The problems of the art department under Cedric Gibbons were manifold. Special credit is due Paul Groesse who supervised the erection of the Baxter and Forrester farms in Florida and later in Culver City. He did a superb job of creating the small town of Volusia and the illusion of a Florida river at Lake Arrowhead, California. Under his watchful eye, plants indigenous to the scrub country were transplanted to the banks of the narrow neck of the lake, and a river steamer, complete with power plant, was transported in sections and assembled on location.

That Len Smith, Arthur Arling, and I should have won an Academy Award for "The Yearling's" cinematography is especially gratifying and we appreciate the splendid cooperation of the many who were associated in the photographic work on the production.



- ★ Linear response makes processing easier especially on density recordings.
- ★ Flat frequency response.
- ★ Requires only 300 milliwatts for full modulation.
  Can be biased for noise reduction.
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- ★ May be used for 16 m/m or 35 m/m tracks.
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Utah Cine Arts

Capacity attendance enthusiastically received the pictorially-beautiful adventure film of Dr. R. G. Frazier, "Down the Salmon River," at the March 19th meeting of Utah Cine Arts Club of Salt Lake City. Surprise film was provided by Howard Frederick, while program chairman LeRoy Hansen headed a technical discussion on correct use of light meters.

Recent attendance increases necessitated securing of larger-capacity room at the Newhouse hotel for the meeting of April 16th, with program chairman William D. Loveless providing a technical discussion on film titling, and a program consisting of surprise film by Al Morton; Allen Bateman's "Isle of Capri, Spring of 1939"; "Spring Melody," by Pete Larsen; and "Magic Magazine," by Robert Youngston.

Oakland Camera

Regular meeting of the movie section of Oakland Camera Club was held at Chabot school auditorium on April 8th. Section chairman, Dr. Numa P. Dunne, presented a talk on the subject of titles, and projected a film illustrating several different types of titles.

Film program included: "Snow Trip," and 'Mother Lode"; latter with sound and running commentary; both by W. S. Boyle; "Over the Waves," by B. L. Williford; "Beautiful Niagara," by Dr. F. Y. Lee; and 'Crossroads—U. S. A.," by R. H. Sampson.

Milwaukee Amateur

Net profit of the annual Gala Show of Amateur Movie Society of Milwaukee, held at Shorewood Auditorium on March 22nd, amounted to $168.53, according to club bulletin announcement. Total of 784 tickets were sold for the event.

"The Importance of Editing Your Film" featured the April 9th meeting, held at the Red Arrow Club. Film shot by club members at the Youth Center was actually edited, and gave members an insight on just how to do it. At the April 23rd meeting, subject was "The Art of Shooting Color." Demonstration included both interior and exterior setups, and advised on methods of improving exposures.

San Francisco Westwood

Westwood Movie Club of San Francisco will hold an impromptu contest in May, with entries comprising 50 foot roll of 8 mm., and 100 foot roll of 16 mm.—with only one splice allowed on each film. Regular annual contest will be held in November; with entries comprising maximum of 200 feet for 8 mm. and 400 feet for 16mm. At the March 28th meeting, Leo Kerkhof and Joe Pissott demonstrated sound equipment they constructed for synchronizing with 8 mm. film.

New York Metropolitan

Film program for the March 20th meeting of Metropolitan Motion Picture Club of New York, held at hotel Pennsylvania, included: Frank Gunell's "While the Earth Remaineth"; "Bluff Island Idyl," by George Mesaros; and "Trapper," by Charles J. Ross.

Club's 14th annual Gala Night was held at Hunter College Playhouse on April 18th, with an outstanding program of "the best in amateur motion pictures" attracting a capacity audience.

At the February meeting, members voted C. L. Spaulding's "Vermont Calls," best in the novice contest. Second went to John P. Steele for "A Sap's Fable," and third place to Alice Burnett for "High Sierras."

The well-attended supplemental meetings provide members with expert advice and guidance for better movie making. At the March 5th session, independent producer, William Nelson detailed the manner in which professional films are steered through the original idea, rough story draft, scenario, actual production, editing, etc.; and then screened the film he had described. At the April 2nd meeting, Leo Heffernan demonstrated his direction of an actual film in kodachrome; and explained each step in the production

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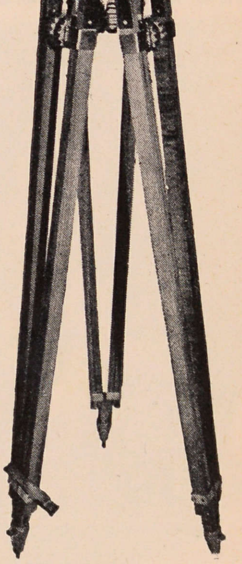

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American Standards On Motion Pictures

All American Standards on Motion Pictures developed by the motion picture industry are published officially for the industry by the American Standards Association. The procedure used in the past was somewhat involved, but has been simplified in the light of experience gained in standardization during the war and the preceding ten years. At present, American Standards may be proposed by any competent individual, organization or industrial group and it is expected that they will substantiate the claims that such new proposals are desirable. Safeguards are necessary, of course, to insure that the proposed standardization will not prejudice technical development in motion pictures, and the ASA procedure does this as well as make certain that anyone stating his opinions for or against any new proposal has an equal opportunity to be heard.

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The withdrawal of existing standards is as carefully supervised as the preparation of new ones, and the same procedures are observed. An example is—"American Recommended Practice for Motion Picture Film, Theater Sound Fader Setting Instructions, z22.32-1941," which was officially approved for withdrawal by the ASA on March 7, 1947. Therefore, this standard is no longer valid and will not be considered as having industry sanction in the future.

Sometime prior to 1941, the industry adopted the practice outlined in this standard, because at that time it was felt necessary to provide more than one type of recording for certain feature releases. Fader Setting Instructions to projectionists were inserted as a 15-frame strip of information located in the first 20-frames of the synchronizing leader of every release print. Prints which had normal equalization and recording characteristics, were marked "Regular" prints, while all other prints were either "Hi-Range" or "Lo-Range." This practice has not been followed recently, and since none of the studios are now using it as outlined, the Research Council of the Academy of Motion Picture Arts and Sciences recommended to the ASA Sectional Committee on Motion Pictures, z22 that it be withdrawn because continued existence of the published standard implied that the practice was still being observed.

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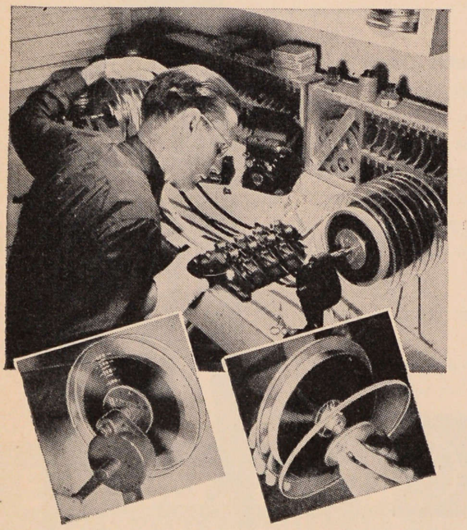

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The Sectional Committee voted in favor of the withdrawal and on December 31, 1946 the Secretary of that Committee asked the SMPE Board of Governors, which acts as its sponsor, to formally transmit this recommendation for final action by the ASA Standards Council. The Board did so and official ASA approval of the withdrawal was announced on March 7, 1947.

At the present time, American Standards on Motion Pictures number from Z22.1 through Z22.54. Two of them, Z22.1 and Z22.32 have been officially withdrawn leaving 52 valid standards on the current list. Of these, 26 were recently revised and published in the SMPE Journal for April and September, 1946. They are available in complete sets, bound in a heavy loose-leaf binder, from the General Offices of the Society in the Pennsylvania Hotel, New York, N. Y.

The remaining 26 standards are now in various stages of revision, and as they are completed and approved, will also be announced in the Journal. Individual notices of all new standards and revisions, as well as withdrawals, will be sent to all who have purchased standards binders, so that they may keep their records always current.

A number of proposals for new motion picture standards have been submitted to the SMPE and are now being considered by various Society Engineering Committees. Reports of these committee's activities are scheduled to appear in the Journal and will give an indication of current standards work.

Recently adopted standardization procedure of the SMPE provides for publication of all new standards proposals in the Journal, in the form of a complete report outlining the past history of each new standard, the story of its progress through the Society Committees and a review of its ultimate effect on the industry. Following publication of this report in the Journal, and a suitable waiting period of about 60 days, each new standard will go to letter ballot of the Committee on Standards if no unfavorable comments or criticisms are received. However, if any serious objection to the new proposal has been raised as a result of this publication, the standard will go back to the Committee that prepared it, with appropriate instructions from the Engineering Vice-President and the Chairman of the Committee on Standards to assure that each serious comment receives thorough consideration. Then, following approval by the Committee on Standards, the customary standardization procedures are observed and the standard ultimately published.

Shooting Bipack

(Continued from Page 163)

is more destructive of quality than an image that is degraded in sharpness and color because of lack of register.

In the event the print is out of register and the negative shows no perforation damage, it would be wise to have the laboratory check the printing machine before assuming that the camera is at fault. Besides being mechanically perfect the printer, to obtain good register, should use the same perforation for registering the two negatives to the Duplitized positive as is used by the camera for register. Otherwise perforation idiosyncrasies may cause out-of-register prints despite good camera operation.

As an aid in properly maintaining the cameras we photograph a test chart at the end of each day's work. The chart used at Hal Roach Studio is modified from one orginally designed by the camera department of Republic Studios. An examination of the two negatives obtained is an excellent check on the camera's performance. Any lack of sharpness in the back negative, above that normally caused by the diffusion of the light passing through the front film, is easily noted. Another camera may be substituted and the camera sent to the shop for checking. Before the camera is used again another photographic check is made and the negative examined.

We have obtained our best results with coated lenses. It is recommended that the wide-angle lenses should be carefully tested for covering power before being used. We have had satisfactory results with 24-, 28-, 30-, 35- and 40-mm lenses, but such wide-angle lenses should be used with discretion. The present 400-ft. capacity magazines used for two-color bipack are wasteful of film and the constant reloading necessitated by the short lengths uses up valuable production time. The Roach Studios are engaged in the design and construction of a 1000-ft. magazine.

The orthochromatic film in the bipack combination comes in two types: an exterior for daylight illumination, and an interior for tungsten lighting. Because of the difficulties of obtaining a sufficiently high level of illumination with tungsten lights and variations in color temperature owing to aging of incandescent lamps, only the exterior type of bipack is used in the Roach Studios. This necessitates the use of high-intensity carbon arc lights and Macbeth filtered incandescent units.

Lighting practice for bipack is similar to that for any color process and will only be summarized briefly. Backlight is kept to a minimum; only the necessary amount used to give detail in hair and separate the planes of color. An undue amount gives an unpleasant bluish tinge. In exteriors, backlight makes grass and foliage appear brown and should always be avoided except when special effects are desired. For street scenes and exteriors where there are no deep shadows, overcast days have given us our best results (since we always use high-intensity arcs, and booster lights) for foregrounds and faces. The use of an Aesculin-type filter to cut the ultraviolet helps in redition of face values, skin textures, and colors. In general the set should be fully lighted, avoiding deep shadows. With coated lenses at *f*/2.8, a keylight of 500 ft-c is used, filled to an over-all of 650 ft-c.

For night effects, and somewhat deeper shadows, less fill and more crosslight is used. The negative should be fully exposed, the proper effect being obtained by printing down. Night effects are accentuated by the use of "practicals" and brightly lit windows. In practice about 20 per cent of the lights used are incandescent lamps with Macbeth whitelite filters. Occasionally ordinary incandescent spots are used without Macbeth filters to bring out or emphasize reds and orange, or in the photographing of color characters. Because of the volume of light necessary, large units are used as far away from subjects as set construction will permit. A *Y-1* filter is used on all high-intensity spots, to cut the excess of blue, while the Mole-Richardson broadsides are used without filters. The side arcs are 5500 K. The high-intensity arcs with *170-Y-1* Brigham filters are 5900 K.

No specific rules can be given for make-up since the problem changes with the actors and actresses. In general, in a two-color process the make-up should be on the light side to avoid a red-orange or sallow appearance. Lip rouge should be an orange-red, blue-reds photographing much too dark. We have found grease to be more satisfactory than "pancake" and no make-up is used above No. 25.

Because of the light make-ups, blended modeling is used to prevent masking appearance and to break color up into planes. For men, a beard cover must be used; otherwise the beard comes through as a blue shadow. No make-up is used on children. The make-up must be carefully balanced between characters to avoid extremes. Flesh tones are best rendered when the print is on the light side. Dark prints cause tones to take on an orange cast rather than the more desireable pink appearance. Make-ups made for existing three-color processes have not been found satisfactory. Standard black-and-white technique in lighter shades has been found more suitable.

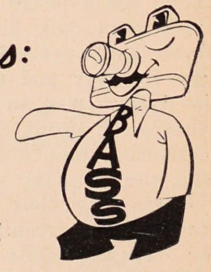
The successful use of two-color bipack requires the most careful selection of colors in both sets and wardrobe. Certain difficult colors should be avoided and the most painstaking attention paid to the relationships of colors used. The use of pastel tones of color produce the best results. Excessive use of brilliant colors is to be avoided except in small areas for emphasis only. Colors darker than the middle range of the scale should not be used except where special efects are desired. This is because all dark colors tend to reproduce with a certain sameness, giving a monotone effect. The use of black and white is good in this regard, to give added range. Contrasting colors used together are excellent for heightening color effectiveness. Blue appears bluer by virtue of being adjacent to a yellow. In men's wardrobes too many grays should be avoided since they tend to reproduce alike, leaning to the blue-green. For white shirts, towels, bedding, *etc.*, we use a buff color, rather than the usual gray since the buff reproduces a better white. Browns reproduce fairly accurately, therefore graduations can be better judged. In the selection of wardrobes it is better to make actual photographic tests.

It should be remembered that only the faces are the really fully lighted areas so that clothes are somewhat underexposed. This tends further to degrade dark colors. In general, grays reproduce with a greenish cast, yellow goes orange-brown, reds on the magenta side, tend towards brown, orange-reds reproduce the brightest. Fluorescent cloth used for stage productions reproduces with unusual brightness and can be used effectively where a very brilliant color is desired.

In all instances it is best to make photographic tests of both sets and wardrobes prior to actual production. It is essential that the art director, the wardrobe designer and the cinematographer work closely together to achieve a harmonious result.

Adequate liaison between the color laboratory and the studio is most important, both in keeping the cinematographer informed about his negative and in assisting the laboratory in achieving the effect the cameraman is striving for.

Process shots, matte shots, wipes, dissolves, speed work, *etc.*, can all be done in two-color bipack; in fact, anything which is possible in regular black-and-white photography is feasible in two-color bipack.



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Kodak Hits Production Peak

Eastman Kodak Company, terming progress in color the top photographic development of the past year, reports that the output of most of the firm's products hit new peacetime peaks in 1946 and would continue to rise during 1947.

The company's annual report for 1946, currently mailed to more than 42,000 stockholders, also announced:

1. Building projects to provide increased production facilities, delayed by the war, are being pushed ahead "as rapidly as possible."

2. A "sizable appropriation" has been made to continue a broad program of research, development, and process improvement.

3. Company employment at the year's end totaled 48,800 in this hemisphere, an increase of 6,000 during 1946 and an all-time high.

4. Tennessee Eastman Corporation, associate company at Kingsport, Tenn., is expanding its manufacturing plants to provide broadened production of new chemical products, textiles, plastics, and dyestuffs.

5. Distillation Products, Incorporated, is enlarging its activities in the high-vacuum equipment and vitamin fields. DPI is jointly owned by Kodak and General Mills, Incorporated.

The booklet report covers the company's 1946 activities and supplements financial details, announced March 5, which showed record peacetime sales of $274,703,448 and net profit of $35,691,318. The latter figure includes unusual tax reductions totaling $3,936,800.

Although selling prices of many Kodak products were increased, the report noted, the average price level of Kodak goods was only six to seven per cent above that prevailing immediately before the war and did not make up for the larger rise in costs in 1946. Percentage of profit from operations, consequently, was lower than before the war, the company said.

Explaining that its postwar reconversion was virtually completed in 1946, the company calls attention to unprecedented production levels for a non-war year in sensitized goods, photographic equipment, and optical products.

The report, discussing research into relatively new fields, pointed out, as an example, that "a simple photographic method of printing designs on metals, plastics and other materials (Kodak Transfax Process) is now being studied by the Research Laboratory for use in the decoration of ceramic ware."

In addition to major projects in color, industrial photography, and the graphic arts, the company added, the research program embraces methods of extremely rapid film processing, which "are being studied in relation to commercial needs, especially those arising in the television field."

Work on rare isotopes, such as Carbon 13 and Nitrogen 15, which are widely demanded for medical research, will continue and "will gradually become an integral part of the production program which now supplies more than 3,000 chemical compounds to research laboratories in the United States," Kodak disclosed.

Tennessee Eastman, meanwhile, "is equipping a large laboratory at Kingsport to study the special problems of cellulose esters and their applications, and the work of the company in related fields of chemical science is being concentrated there," the report said.

A new laboratory, the report continued, also is being installed in Panama City to study photographic equipment and materials under tropical conditions.

The company revealed that part of a new colorprint service building, under construction at Kodak Park in Rochester, will begin operations by this summer "with a consequent increase in color-print output."

In a summary of company activities outside the United States, the report said that plants at Harrow, England; Toronto, Canada; and Vincennes, France, "operated at high levels." The plant in Stuttgart, Germany, "continued its operations, begun in 1945, under jurisdiction of the American Military Government."

"Prewar operations of the company in Manila, Shanghai, Hong Kong, and Singapore have been resumed," the report continued, "and plans have been made for the reopening of the establishment in Baravia, Java, during 1947."

The booklet's non-financial section, entitled "Progress Highlights from a Year of Transition," also reported:

Color Film Output Increased

1. A "substantial increase" was achieved in the output of color film and prints and "the production rate in general for the many types of films and papers was the highest ever recorded in the company's peacetime operations." Two new color films were introduced in 1946: Kodak Ektachrome, which the photographer can process himself; Kodachrome Commercial Film 16mm., a motion-picture film yielding high quality duplicate prints.

2. Production of cameras and equipment attained by the end of 1946 a rate "about 20 per cent higher than that for the year as a whole and above that for any prewar year." Output of precision cameras on a unit basis exceeded any previous year by 50 per cent.

3. Manufacture of optical goods likewise reached "a new high for peacetime."

4. Despite the heightened production, distribution of many products was on an allocation basis because of the great, general demand.

5. An improved lens-coating technique ("Lumenizing") was devised. This system enables Kodak to coat exposed outer lens surfaces with a microscopically thin layer of magnesium fluoride to give "increased light transmission, better contrast, and a crisper separation of tone values." Previously, coating only the inner glass-air surfaces of the lens systems was practicable.

6. Tennessee Eastman introduced several "increasingly important chemical products" for use in lacquers, sulfa drugs, insecticides, and medical dressings. The Kingsport firm also is preparing to turn out on a large scale some 15 new hydroquinone derivatives for producing antitoxidants, resin products, dyes, perfumes, and pharmaceutical goods.

7. Establishing itself "as a major producer" of acetate dyestuffs, Tennessee Eastman is expanding the manufacture of its acetate yarns and staple fibers, including some newly developed types.

8. The 1946 wage dividend totaled approximately $8,100,000 compared with $7,362,000 for 1945, Additionally, in the field of employee benefits, the company broadened its annual vacation and group life insurance plans.

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Color Light Playing

For one to read "NOURTHAR," the fine art of LIGHT COLOR PLAYING, is like reading the writing of a person of the future. Mary Hallock Greenewalt surely has a vast knowledge of the world, for in her book she paints vivid pictures of all emotions of life and experiences, while describing her masterly technique of light playing.

The book, 10⅜ inches by 7½ inches, hard backed and bound in silver cloth, has fifteen chapters with 150 illustrations on four hundred and twelve pages. While very lengthy, one should not miss a page or even a single line. I'm sure the reader will be well paid.

The art of color playing with the author's clever machine; or should I say an organ of electric switches, dimmers, wire connections and lamps with remote controlled multiple filters; while a great symphony is being played or while the actors are speaking their lines surely would add the finishing touches we have long wanted.

During the many years as a soloist in symphonies, concert bands and orchestras, I had often wished for some color effects that would change with the various moods and tempos. How often have we watched grand sunsets in all their rhapsodies of colors and felt like bursting into song . . . or were we made silent and romantic while we sang within . . . deep blue skies with a full moon . . . soft lullabys and whispers of love . . . then there was the early morn or the day on the desert with its ever-changing moods . . . so it is to Mary Hallock Greenewalt, a fine musician, an inventive genious, and a philosopher who has patiently over many years designed, built and perfected a portable system whereby we may have at our finger tips all these changing moods of light wherever and whenever desired, that we are indebted.

In the motion picture world, we Cinematographers dreamed COLOR. Now we have it and it predominates on the screen because it is real. We see the actor, the landscape, the valleys, the skies and mountains in all the colors that nature created . . . Now why not mix color photography with NOURATHAR? I'm sure the combination would give the music, art, and story directors greater latitudes.

Because of its depth, the book—while not directed in anyway towards motion pictures—contains color philosophies of great interest to the studious reader. It cannot be read casually.

From the jacket of this book published by Westbrook Publishing Company of Philadelphia, I wish to quote a few lines in conclusion. "NOURATHAR is the author's coined name for the SIXTH ART. The word is derived from the Arabic roots "nour" meaning light, and "athar" the essence of." To me "NOURATHAR" is the key for those who wish to unlock the doors to a new artistic world.

Reviewed by Glenn R. Kershner, A.S.C.

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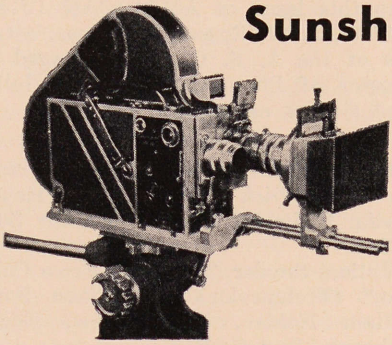

The Sunshade-Filter Holder is supported by a double arm bracket. This attaches to a plate which you can fasten on to the base of your camera where it can remain at all times if you desire. The Sunshade-Filter Holder is demountable into 3 small units which, when not being used, fit into your camera carrying case.

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Alhambra La Casa

Exhibition of "Free Wheeling," which won the $1,000 first place prize in the recent Union Pacific contest for Stanley Midgley, spotlighted the April 21st meeting of La Casa Movie Club of Alhambra, California, held at the YMCA building. Program also included demonstration of various gadgets by R. A. Battles, and film program comprising: "Pasadena," by Edwin K. Kendall; and "Four Seasons," by Lloyd B. Austin. Tenth anniversary of La Casa will be celebrated on June 16th.

Seattle Amateur

Edited version of the new Seattle Amateur Movie Club's production, "Give and Take," was shown at the March 11th meeting; with other films including "Up and Atom," club production of Walla Walla Movie Club; "Wings," by Dr. Congdon of Wenatchee Movie Club; and pictures by members R. A. Currie, L. G. Dillaway, Pete Delaurenti, Art Erickson, John Flynn, and O. O. Fahlenkamp.

Current Assignments of A. S. C. Members

As this issue of AMERICAN CINEMATOGRAPHER goes to press, members of the A. S. C. were engaged as Director of Photography in the Hollywood studios as follows:

Columbia

Burnett Guffey, "Assigned to Treasury," with Dick Powell, Signe Hasso, Maylia, Ludwig Donath, Vleadimir Sokoloff.

William Snyder, "The Man From Colorado," (Technicolor) with Glenn Ford, William Holden, Ellen Drew, Edgar Buchanan, Ray Collins.

Vincent Farrar, "Blondie in the Dough," with Penny Singleton, Arthur Lake, Larry Simms.

Henry Freulich, "The Son of Rusty," with Ted Donaldson, Tom Powers, Ann Doran, Stephen Dunne.

Ira Morgan, "Two Blondes and a Redhead," with Jean Porter, Jimmy Lloyd, Judy Clark, Douglas Wood.

Phil Tannura, "Destiny," with John Beal, Trudy Marshall, Jimmy Lloyd.

Eagle-Lion

Tony Gaudio, "Love From a Stranger" with John Hodiak, Sylvia Sidney, Ann Richards, Isobel Elsom, Ernest Cossart, John Howard, Anita Bolster.

Allied Artists

Harry Neumann, "The Hunted," with Belita, Preston Foster, Cathy Carter, Russell Hicks, J. Farrell MacDonald.

Metro-Goldwyn-Mayer

Charles Schoenbaum, "Good News," (Technicolor) with June Allyson, Peter Lawford, Joan McCracken, Pat Marshall, Ray McDonald, Mel Torme.

Harry Stradling, "The Pirate," (Technicolor) with Judy Garland, Gene Kelly, Walter Slezak, Gladys Cooper, Jerry Bergen.

Paramount

Ray Rennahan, "Whispering Smith," (Technicolor) with Alan Ladd, Robert Preston, Brenda Marshall, Donald Crisp, William Demarest, Fay Holden.

PRC

John Alton, "Bury Me Dead," with Mark Daniels, Greg McClure, Cathy O'Donnell, June Lockhart.

RKO

Harry Wild and W. Howard Greene, "Tycoon," (Technicolor) with John Wayne, Laraine Day, Sir Cedric Hardwicke, Anthony Quinn, James Gleason, Judith Anderson.

George Barnes, "Mourning Becomes Electra," with Rosalind Russell, Michael Redgrave, Raymond Massey, Katina Paxinou, Leo Genn, Henry Hull, Sara Allgood.

Lucien Ballard, "Memory of Love," with Dana Andrews, Merle Oberon, Ethel Barrymore, Hoagy Carmichael, Artur Rubinstein.

Frank Redman, "Dick Tracy vs. the Gruesome Gang," with Raph Byrd, Boris Karloff, Lyle Latell, Anne Gwynne, Edward Ashley.

Gregg Toland, "The Bishop's Wife," (Samuel Goldwyn Production) with Cary Grant, Loretta Young, David Niven, Monty Wooley, Elsa Lanchester.

Screen Guild

James Brown, Jr., "Dark Bullet," with Henry Wilcoxon, Mary Brian, Douglas Dumbrille.

Selznick

Joe August, "Portrait of Jennie," with Jennifer Jones, Joseph Cotten, Cecil Kellaway, David Wayne, Albert Sharp.

Twentieth Century-Fox

Ernest Palmer, "Scudda Hoo, Scudda Hay," (Technicolor) with June Haver, Lon McCallister, Anne Revere, Walter Brennan, Henry Hull, Robert Karnes.

Norbert Brodine, "Kiss of Death," with Victor Mature, Brian Donlevy, Patricia Morison, Coleen Gray.

Joseph LaShelle, "The Foxes of Harrow," with Rex Harrison, Maureen O'Hara, Richard Haydn, Gene Lockhart, Vanessa Brown, Victor McLaglen.

Universal-International

Stanley Cortez, "Secret Beyond the Door," (Diana Prod.) with Joan Bennett, Michael Redgrave, Anne Revere, Barbara O'Neill, Natalie Schaefer, Rosa Rey.

Maury Gertsman, "Singapore," with Fred MacMurray, Ava Gardner, Philip Dorn, Richard Haydn, Thomas Gomez, Spring Byington.

Milton Krasner, "Something in the Wind," with Deanna Durbin, John Dall, Donald O'Connor, Charles Winninger, Helena Carter, Margaret Wycherly.

Hal Mohr, "The Lost Moment," (Walter Wanger Prod.) with Robert Cummings, Susan Hayward, Agnes Moorehead, Joan Lorring, Frank Puglia.

United Artists

Mack Stengler, "The Maurauders," (Hopalong Cassidy Prod.) with William Boyd, Rand Brooks, Andy Clyde, Dorinda Clifton.

Warners

Karl Freund, "Wallflower," with Joyce Reynolds, Robert Hutton, Janis Paige, Edward Arnold, Barbara Brown.

Sol Polito, "Voice of the Turtle," with Eleanor Parker, Ronald Regan, Eve Arden, Kent Smith, Wayne Morris, John Emery.

Arthur Edeson and William V. Skall, "Two Guys From Texas," (Technicolor) with Dennis Morgan, Jack Carson, Dorothy Malone, Andrew Tombes, Penny Edwards.

Peverell Marley, "Whiplash," with Dane Clark, Alexis Smith, Zachary Scott, Jeffrey Lynn, S. Z. Zakall.

Ted McCord, "The Treasure of the Sierra Madre," with Humphrey Bogart, Walter Huston, Bruce Bennett, Tim Holt, Barton McLane.

Cinema Workshop

(Continued from Page 172)

sistency of screen *geography* be maintained. Thus, if he leaves the frame (facing the camera) at the *lower right* corner of the screen, he must enter the frame of the following scene (facing the camera) from the *upper left* corner. But if, in the second scene, he is walking away from the camera, he must enter from the *lower left* corner.

A somewhat more theatrical variation of this pattern is the device in which the character walks straight toward the camera in one scene and directly away from it in the following scene.

Specific Continuity Elements

Pictorial continuity depends upon the proper build-up to the main point of the sequence. This simply means that if you have a striking close-up as the "punch line" of your sequence, you would not haphazardly throw it into the film, but would build up to it with well planned and executed long and medium shots.

The device known as *juxtaposition,* if correctly and not too frequently used, provides a smooth and original transition between scenes. Simply defined, the term means the matching up for effect of two separate scenes, each of which has different subject matter, but similar compositional pattern. For example, if at the close of one scene we move into a close-up of a spinning roulette wheel, and then dissolve to a spinning car wheel to introduce the next scene, an effective transition is made. Similarly, if we concentrate on the flame of a burning match and then dissolve to flames leaping in a fireplace, we have another forceful example of juxtaposition of compositional elements. This device can be used to add variety, to create smooth transitions, and to create a symbolic connection between two subjects of different meaning but similar form.

As we have said before, camera movement is one of the most effective means of preserving pictorial continuity—its strongest point being that changes in composition can be made without the audience becoming confused as to the physical relationship of different parts of the setting or action.

The straight *tilt* or horizontal *pan* is used to follow the action of the moving object, while the tripod itself remains stationary.

The *follow* shot (also known as *dolly* shot, *trucking* shot, or *perambulator* shot) is executed by mounting the tripod on a movable base so that the camera actually follows along with the subject as it moves.

A *pull-in* is a shot in which the camera starts with a long shot and gradually moves into a close-up of a particular segment of the scene. It is one effective means of establishing a new scene and then getting to the most important element quickly and smoothly.

The *pull-back,* a direct reverse of the above technique, starts with the camera in close-up, and then moves back to a long shot to show the general surroundings. This is effective when it is necessary to impress a certain segment of the situation onto the audience's mind, before the overall setting is shown.

Camera movement should never be used merely for the sake of movement, or for the purpose of forcing action into an otherwise static treatment. Like any other pictorial continuity device it should always be used with a definite effect in mind.

Pictorial continuity should originate in the script. The director should be careful that the pattern follows through in the action as he stages it. The cameraman, above all, should use his camera to enhance the flow of one scene into the other—so that, on the screen, the audience will gain the impression of a freely moving story unhampered by jumpy transitions or gaps in the narrative.

NEXT ISSUE: *Special Effects*

Cameraman in Japan Now Available for Background Footage

Gene Zenier is currently in Japan on a motion picture assignment for March of Time, and has permission to do other coverage in both 16 m... color and 35 mm. process background footage. Zenier advises that he has a Mitchell and B&H standard for shooting, and is willing to undertake assignments on approval basis. His cable address is Gene Zenier, Time, Inc., Tokyo. Mailing address, PRO, GHQ, FEC, APO 500, c/o Postmaster, San Francisco, Calif.

Telefilm Expands

Construction is currently under way on new building to house developing and recording laboratories at Telefilm studios, Hollywood.

The company has just installed a new recording system to better service 16 mm. producers. Apparatus consists of a Maurer recorder, enhanced by special equipment developed by Telefilm engineers, enabling recording by variable density, variable area, direct positive, reversal, etc.

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Message to A.S.C.

(Continued from Page 165)

bow in the direction of the fifteen charter members of the A.S.C.—Arthur Edeson, Victor Milner, Joe August, J. D. Jennings, Homer A. Scott, William C. Foster, L. D. Clauson, Eugene Gaudio, Walter L. Griffin, Philip E. Rosen, Charles G. Rosher, Roy H. Klaffki, Fred LeRoy Granville, Robert S. Newhard and L. Guy Wilky.

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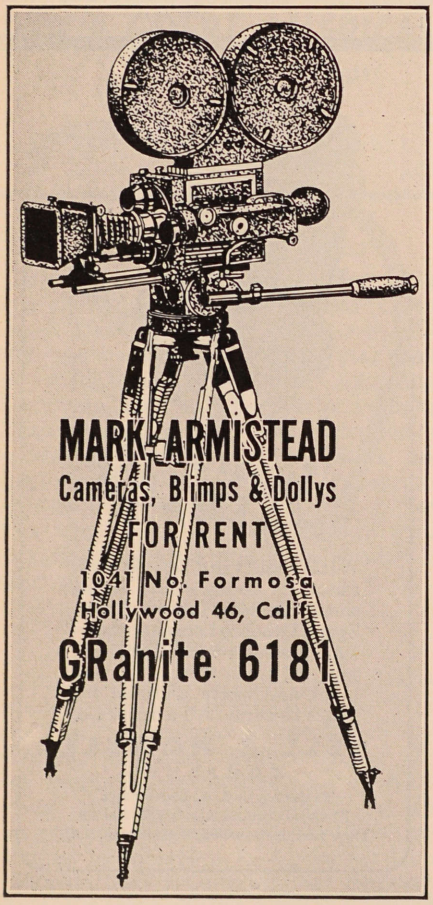
Bell & Howell Changes Lens Coating Name

In a move calculated to maintain uniformity in the use of "Filmo" as a widely-recognized symbol of precision, Bell & Howell Company has redesignated as "Filmocote" its lens surface coating, it is learned.

Previously called "Extra-Lite," the anti-reflection surface treatment being applied to B&H-made camera and projection lenses has the same characteristics of durability and correct color which resulted from the Chicago firm's war-time research and experience in precision optics.



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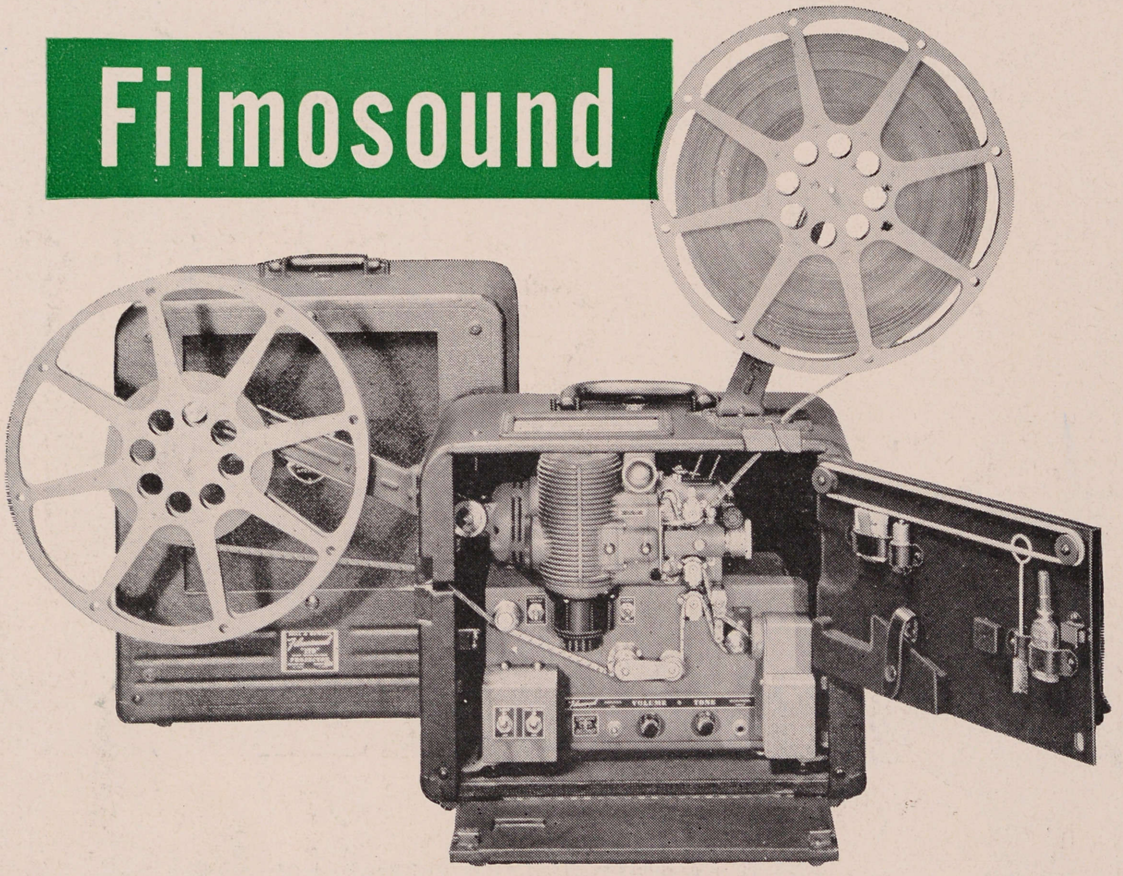

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